National Aeronautics and
Space Administration

NASA

2023

ADMINISTRATOR'S AGENCY HONOR AWARDS

Marshall Space Flight Center
May 3, 2023

Foreword

Message from the NASA Administrator
2022 Administrator's Agency Honor Awards

NASA is a global beacon of innovation, ingenuity, and inspiration. Our missions demand decades, even generational planning. That is why it is a privilege to recognize those whose devotion and commitment enabled such remarkable mission excellence.

In 2022, NASA unfolded the universe with the James Webb Space Telescope. We changed the trajectory of a target asteroid with the DART impact. We took a giant leap in our journey back to the Moon with Artemis I, marking key achievements for the Space Launch System rocket, Orion spacecraft, and ground systems. We demonstrated inflatable heat shield technology that could be key to landing humans on Mars with LOFTID – and more.

The past year was one for the history books. Each member of the NASA family helped make it possible. Each brought their passion, dedication, and commitment to NASA every day.

Together, we are poised to accomplish more daring feats with more advancements in aviation with the X-59, more exploration in the heavens, more efforts to protect the planet, and more incredible technological breakthroughs that will help shape the 21st century.

Today, we recognize members of the NASA family among us whose meritorious careers demonstrate work of the world's most preeminent spacefaring organization. Their achievements and devotion to excellence have helped shaped history – for NASA, for our nation, for all of humanity.

We are deeply grateful for the daily commitment of these honorees. Their exemplary careers have taught us how to accomplish our missions and persevere through challenges.

The example each honoree sets contributes to a legacy larger than any individual alone. Together, the honorees we celebrate tonight will continue to help NASA lead humanity farther into space than ever before, inspiring the next generation – the Artemis Generation – of explorers with every new success.

Bill Nelson

2022 Administrator's Agency Honor Awards

Program

Introductions
William Marks
Deputy Director of Center Operations
Marshall Space Flight Center
Master of Ceremony

Presentation of Colors
Columbia High School JROTC

The National Anthem
Renatta America

Welcome
Jody Singer
Director
Marshall Space Flight Center

Opening Remarks
Casey Swails
NASA Deputy Associate Administrator

Administrator's Address
Bill Nelson
NASA Administrator

Presentation of Distinguished Honors
Casey Swails
NASA Deputy Associate Administrator

Jody Singer
Director
Marshall Space Flight Center

Presentation of Awards by Center

Closing Remarks
William Marks
Deputy Director of Center Operations
Marshall Space Flight Center
Master of Ceremony

Reception
Activities Building 4316

Center Tour

Distinguished Service Medal

This is NASA's highest form of recognition that is awarded to any Government employee who, by distinguished service, ability, or vision has personally contributed to NASA's advancement of United States' interests. The individual's achievement or contribution must demonstrate a level of excellence that has made a profound or indelible impact on NASA mission success, and therefore, the contribution is so extraordinary that other forms of recognition by NASA would be inadequate.

Mr. Dennis Andrucyk*
Mr. Omar Baez
Dr. Daniel Barta
Mr. Michael Bolger
Mr. Richard Burt*
Mr. Ernesto Camacho
Mr. John Childress
Mr. Nicholas Chrissotimos
Ms. Maria Collura
Ms. Mary DiJoseph
Mr. Charles Dingell
Mr. Jason Edge
Dr. David Glass
Mr. Jay Henn*
Dr. Paul Hertz
Mr. Howard Hu
Ms. Sandra Irish
Ms. Lauren Johnson
Mr. Norman Knight
Mr. David McBride
Ms. Amanda Mitskevich
Ms. Karen Oliver
Mr. Gregory Robinson
Mr. Edward Schairer
Dr. Larry Thomason
Dr. Lisa Watson-Morgan
Ms. Julie Kramer White

** The Agency Honor Award was awarded between January 1, 2022, and September 13, 2022, outside the normal awards cycle.*

Distinguished Public Service Medal

This is NASA's highest form of recognition that is awarded to non-Government individuals or to an individual who was not a Government employee during the period in which the service was performed, whose distinguished service, ability, or vision has personally contributed to NASA's advancement of United States' interests. The individual's achievement or contribution must demonstrate a level of excellence that has made a profound or indelible impact to NASA mission success; therefore, the contribution is so extraordinary that other forms of recognition by NASA would be inadequate.

Ms. Lori Costello

Dr. David Crisp

Mr. Leslie Deutsch

Dr. Dariush Divsalar

Ms. Winnie Humberson*

Dr. Eric Jones

Dr. James Mahan

Mr. Jeffrey Manber

Senator Barbara Mikulski*

Mr. Bernardo Patti

Dr. George Rieke

Dr. Marcia Rieke

Dr. Allan Sherman

** The Agency Honor Award was awarded between January 1, 2022, and September 13, 2022, outside the normal awards cycle.*

Honorees by Center

Click the name to be directed to the Honoree page, and the Home icon to return to this page.

Ames Research Center
Mr. Edward Schairer

Armstrong Flight Research Center
Mr. David McBride

Goddard Space Flight Center
Mr. Nicholas Chrissotimos
Ms. Sandra Irish
Dr. George Rieke
Dr. Marcia Rieke
Dr. Allan Sherman

Jet Propulsion Laboratory
Mr. Leslie Deutsch
Dr. Dariush Divsalar

Johnson Space Center
Dr. Daniel Barta
Mr. John Childress
Ms. Lori Costello
Mr. Charles Dingell
Mr. Howard Hu
Mr. Norman Knight
Mr. Jeffrey Manber
Mr. Bernardo Patti
Ms. Julie Kramer White

Kennedy Space Center
Mr. Omar Baez
Mr. Michael Bolger
Mr. Ernesto Camacho
Ms. Maria Collura
Ms. Amanda Mitskevich

Langley Research Center
Ms. Mary DiJoseph
Dr. David Glass
Dr. James Mahan
Dr. Larry Thomason

Marshall Space Flight Center
Mr. Richard Burt
Ms. Karen Oliver
Dr. Lisa Watson-Morgan

NASA Headquarters/
Mission Support Enterprise Organizations
Mr. Dennis Andrucyk
Dr. David Crisp
Mr. Jason Edge
Mr. Jay Henn
Dr. Paul Hertz
Ms. Winnie Humberson
Ms. Lauren Johnson
Dr. Eric Jones
Senator Barbara Mikulski
Mr. Gregory Robinson

Distinguished Service Medal

Distinguished Service Medal

Mr. Dennis Andrucyk

For a distinguished career of outstanding contributions and exemplary leadership that has made a profound and lasting impact at NASA.

Mr. Andrucyk serves as the Director of Goddard Space Flight Center (GSFC), home to the Nation's largest organization of scientists, engineers, and technologists who build spacecraft, instruments, and new technology to study the Earth, sun, solar system, and the universe.

His multifaceted career covers an expansive scope of paramount roles at the NASA Headquarters and GSFC duty locations. He manages an annual budget of over $4 billion, with oversight of a workforce of over 10,000 civil servants and support service contractors.

Mr. Andrucyk joined the Senior Executive Service in 2004 in the Chief Mission Engineering and Systems Analysis Division at GSFC. He led the development of guidance, navigation, and control activities for space missions and all systems engineering. He served as Deputy and then Director of the Applied Engineering and Technology Directorate at GSFC, NASA's largest engineering organization. He was then selected to serve as NASA's acting Chief Technologist and Deputy Associate Administrator for its Space Technology Mission Directorate. He was the principal adviser to the NASA Administrator on technology investment strategies to achieve the Agency's strategic goals. Before his role as GSFC Center Director, Mr. Andrucyk was the Deputy Associate Administrator for NASA's Science Mission Directorate, overseeing the Agency's $5 billion-per-year science program, where he led the planning, direction, and effective management of NASA programs focused on the scientific exploration of the Earth, Moon, Mars, and beyond.

Mr. Andrucyk is a passionate, dedicated, and committed leader focused on achieving the Agency's goals, directly impacting NASA's most ambitious missions. He was instrumental in directing the GSFC team in the development and successful launch of the James Webb Space Telescope (JWST), the largest, most powerful space telescope, during a critical and sensitive time of the worldwide pandemic. On July 12, 2022, he joined distinguished partners and stakeholders for the release of the first images captured by JWST, resulting in worldwide coverage for the Agency.

Other notable missions include the launch of the Landsat 9 spacecraft, the Origins Spectral Interpretation Resource Identification Security - Regolith Explorer spacecraft, the Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging orbiter and atmospheric probe, the Nancy Grace Roman Space Telescope, Minotaur IV rocket, and multiple cargo missions to the International Space Station from Wallops Flight Facility.

He has earned the NASA Outstanding Leadership Medal, NASA Exceptional Service Medal, Goddard Outstanding Leadership Honor Award, and Goddard Exceptional Achievement Award in Diversity and Equal Employment Opportunity. For serving as a steadfast advocate for technology transfer efforts, he was named the 2021 Laboratory Director of the Year by the Mid-Atlantic Region of the Federal Laboratory Consortium for Technology Transfer. He is also a two-time recipient of the Senior Executive Service Meritorious Presidential Rank Award.

Mr. Andrucyk was sought out to represent the United States as one of three voting members in the North Atlantic Treaty Organization Research & Technology Organization, Sensors and Electronics Technology Panel, and was also one of the original members of the United States Space Technology Alliance. Throughout his 36 years of outstanding Federal service, he has proven to be one of the most remarkable leaders of NASA.

Distinguished Service Medal

Mr. Omar Baez

For sustained and superior leadership of cross-Agency teams in successfully launching over 80 of NASA's most significant science and robotic missions.

Mr. Baez has been with NASA for over 32 years, starting his career in the Space Shuttle Program after its return to flight following the Challenger accident. He began his career as a liquid hydrogen engineer and eventually transitioned to Expendable Launch Vehicles, where he started a long career of involvement with NASA's science missions and the commercial launch industry.

Mr. Baez progressed through positions including propulsion engineer and mission manager, where he demonstrated extensive launch vehicle knowledge, leadership abilities, decisiveness during launch counts, and a strength for engaging with team members. This led him to become the NASA Launch Manager and then Senior NASA Launch Manager for the Launch Services Program (LSP), where he is responsible for overseeing the launch teams for over 80 missions, providing the ultimate "GO" for liftoff. Notable missions include Pluto New Horizons, the first Government launch of an Atlas V with a 5-meter fairing; Gravity Recovery and Interior Laboratory, the last Delta II launched on the East Coast; Parker Solar Probe launched on a Delta IV Heavy; Ionospheric Connection Explorer, the last launch of the Pegasus; Jason-3, the first full Government-contracted Falcon 9; and Mars 2020, launched amid a viral pandemic on an Atlas V.

Mr. Baez' adaptable and flexible leadership style allows him to confront and resolve unique challenges that every mission presents. He built strong relationships with launch providers from working level to senior management, enabling open and clear communications that gives NASA better insight into launch operations. He also established excellent relationships with the spacecraft customers at NASA Headquarters and Centers, who fully trust and value his leadership of their missions through launch.

Mr. Baez managed the Mars 2020 launch campaign as the Coronavirus Disease 2019 (COVID-19) pandemic surged. The spacecraft arrived in Florida for final processing and integration to the launch vehicle for a July 2020 launch. He oversaw the coordination with the Department of Transportation (DOT) during the initial month of COVID-19 shutdowns; collaborated with DOT management chain to ensure no roadblocks to license and allow the time-critical delivery of Mars 2020 launch vehicle hardware for the Atlas V booster from the factory and payload fairings from Europe; resulting in on-time delivery of mission critical hardware. He partnered with United States Space Force management to ensure flight personnel had required documentation to deliver the hardware while international commercial flights were grounded by the pandemic.

Mr. Baez oversaw pathfinder planning and implementation of virtual prelaunch reviews and day-of-launch processes to accommodate seat spacing requirements without limiting critical team member participation. He guided the team through multiple unexpected schedule delays due to ground support equipment failures, missteps, team shortages caused by the pandemic, and the discovery of a propellant leak that would have been catastrophic in flight. He ensured the timely and challenging leak repair which involved welding on a launch vehicle with all the avionics, ordnance, hydrazine and kerosene on board, enabling a successful launch. During this time, he instituted increased communication across stakeholders, partners and LSP to maintain readiness throughout the launch campaign, leading to the successful launch of Mars 2020 on the first attempt in its launch window.

Distinguished Service Medal

Dr. Daniel Barta

For distinguished service in enabling years of Environmental Control and Life Support research and development in support of NASA's human space flight endeavors.

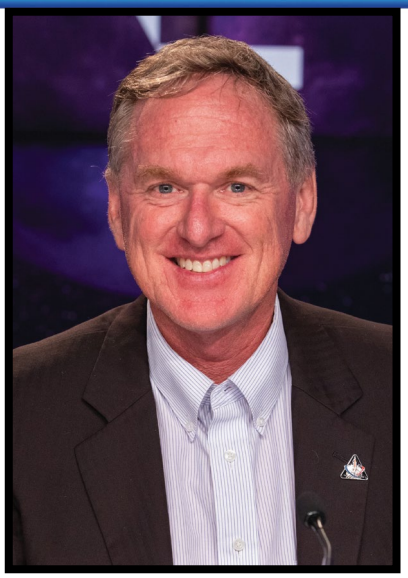
Within NASA, technology is what drives innovation as the Agency pushes to new frontiers, and the energy behind this innovation is a talented and tireless workforce enabling groundbreaking discovery. Dr. Barta, as he nears retirement within the Crew and Thermal Systems Division at NASA Johnson Space Center (JSC), has spent more than 30 years trailblazing breakthroughs in Environmental Control and Life Support System (ECLSS) technologies across the Agency and international community.

Determined in his goals for ECLSS research and development, Dr. Barta has spent the last several decades fostering innovative progress and success within many large and small businesses and universities while cultivating generations of engineers. Furthermore, he has been a steward for the ECLSS domain in Agency and international leadership roles. Through his dedicated service to NASA and the Nation, Dr. Barta has significantly contributed to NASA's presence as a powerhouse enabling human exploration via advances in ECLSS.

Upon receiving his Ph.D. in 1989, Dr. Barta served NASA as a researcher when JSC was conducting bioregenerative life support tests, building up to the Bioregenerative Life Support Test Complex in the 1990s and early 2000s. As NASA dovetailed this work into the Constellation Program and then Space Technology Mission Directorate, he played a leading role in various cross-agency and national ECLSS projects that continue to positively impact NASA and the community at large.

His distinguished leadership championed the research and development for a diverse range of technologies, including: biological approaches for wastewater processing, carbon dioxide (CO_2) reduction approaches, spacecraft oxygen recovery concepts, Extravehicular Activity (EVA) Portable Life Support System (PLSS) variable oxygen regulators, EVA PLSS rapid-cycling amines for CO_2 removal, bioregenerative life support and food production concepts, and Martian in situ resource utilization technologies for oxygen recovery. Dr. Barta has had stunning success influencing decisions in the investment in these low-technology readiness concepts, particularly the EVA PLSS regulators and rapid-cycling amines that are now baselined for use on the Exploration Extravehicular Mobility Unit. Over the last couple of decades, he has spearheaded the solicitation of Life Support and Habitation Systems Small Business Innovation Research and Small Business Technology Transfer contracts. Through his leadership and technical prowess, Dr. Barta enabled the award of more than 80 Phase 1 and Phase 2 contracts to small businesses across America, allowing them to explore their technological potential and provide the incentive to profit from its commercialization.

Within JSC and universities across the Nation, Dr. Barta has mentored numerous young engineers via the Pathways Program and NASA's Space Technology Research Fellowships, influencing the career path of many who now hold influential roles within JSC. He has served on committees such as Capability Roadmapping, the International Advanced Life Support Working Group, Committee on Space Research, and the Institute for Environmental Sciences. Furthermore, he has professionally been involved in various associations including the American Institute of Aeronautics and Astronautics and International Conference on Environmental Systems; serving in steering committee and session organization roles while also authoring more than 50 technical papers.



Distinguished Service Medal

Mr. Michael Bolger

For extraordinary service, dedication, and visionary leadership of the Exploration Ground Systems program contributing to the success of the Artemis I mission.

Mr. Bolger provided extraordinary service to the Federal Government for more than 30 years. He managed a cross-directorate team of ~500 civil servants and ~3,000 contractors in the Exploration Ground Systems (EGS) program. He was a visionary leader who strategically aligned the program with Agency goals for human exploration.

Mr. Bolger sustained active leadership resulting in the successful completion of several aggressive Artemis I milestones, including testing, certification of 31 Ground Support Equipment (GSE) subsystems and 28 facility subsystems which were required for use during Space Launch Systems (SLS)/Orion integrated test and checkout; developing, certifying, and installing more than 3 million lines of code for the Spaceport Command and Control System and 2.5 million lines of code for the Ground to Flight Application Software and GSE software; and completing the stacking, integration, and testing of the SLS and Orion capsule. He championed a sense of urgency across a complex organization to deliver capabilities and ground systems readiness for Artemis I ground operations through the complex integration of the flight systems. Overall, ground operations were handled expertly, testing was completed successfully, and as a result, the EGS program and Kennedy Space Center were well-positioned to support the Artemis I launch.

While preparing for the Artemis I mission, Mr. Bolger's flawless leadership enabled the teams to address and provide resolution to critical engineering issues that affected EGS readiness for flight operations. He worked with flight programs to develop ground operations requirements and to successfully plan integrated test and checkout requirements for ground operations. He established processes and multitier teams of ground and flight engineers to expeditiously disposition issues that occurred during ground operations. To enable success, he cultivated relationships with Exploration Systems Division leadership, the SLS, Orion programs, prime contractors, and sustained strong partnerships with the Navy and Air Force to enable the Orion Crew Module Recovery testing. He initiated efforts to reduce the overall program operating costs. Examples include transforming the role of the civil servant to a risk-based insight/oversight model, resulting in ~50% reductions in resources over 5 years. He also directed an acquisition strategy for the Consolidated Operations, Management, Engineering, and Test contract that balances mission success with long-term program sustainability. These efforts and other initiatives currently being implemented have yielded approximately $20-30 million in savings to the program and are projecting a cost avoidance of ~$1 billion across multiple years.

Mr. Bolger is a devoted leader who prioritizes the workforce above all. Throughout the Coronavirus Disease 2019 pandemic, he navigated a complex environment, including the implementation of masks and vaccine mandates. His leadership through the pandemic enabled the successful assembly of the Artemis I rocket while minimizing impacts to the team and mission. He pledged an environment of diversity and inclusion where employees felt welcome, respected, and connected, which reflected in the results of the 2021 Federal Employee Viewpoint Survey with a global satisfaction index of 84% and employee engagement index of 90%, these increased ~2-3% over 2020, including an employee participation rate for the 2022 survey to 95%, a 12% increase from 2021.

Distinguished Service Medal

Mr. Richard Burt

For distinguished service that has profoundly impacted the effectiveness of NASA and Marshall Space Flight Center, ensuring mission success for critical Agency programs.

Mr. Burt's commitment to servant leadership, innovation, and partnerships over 32 years has had a profound impact on the mission success of NASA Marshall Space Flight Center (MSFC), the Agency, and the Nation.

At NASA, Mr. Burt has served in multiple technical management and leadership positions. He has made significant contributions to NASA's space flight programs, including the Space Shuttle Program, Constellation Program, and Space Launch System (SLS) Program. Since his appointment to the Senior Executive Service (SES) in 2006, he has served in several executive leadership roles including Manager of the Ares I First Stage, Director of the Test Laboratory, and SLS Chief Safety Officer.

Mr. Burt served as Director of the Safety and Mission Assurance (SMA) Directorate since 2016. After graduating from University of Tennessee, he worked for the Tennessee Valley Authority for 12 years in numerous leadership positions in its nuclear power program, giving him a distinguished 44-year career in Government service.

In 2021, Mr. Burt was named Deputy Center Director where his servant leadership style is unparalleled. His positive attitude, attention to detail, and can-do-spirit built partnerships and a workforce with the confidence to achieve more and ensure success. He has led change through an emphasis on partnering with other Center and Agency leaders and small business entities regarding program activity and involvement, emphasizing roles and responsibilities, and advocating for innovation solutions and strategies. he fosters and promotes collaborative and inclusive environments that support MSFC's diverse workforce while participating and mentoring individuals and group contributions that align with organizational and Agency initiatives.

He fostered new approaches with thoughtful and methodical leadership has provided excellent support to internal and external stakeholders through coordination, participation, and facilitation of varied products presented that promote MSFC and NASA while building strong working relationships. Mr. Burt formed and chaired the newly implemented Space Rocks Forum for Human Space Flight Centers (MSFC, Kennedy Space Center, Stennis Space Center, Johnson Space Center, Glenn Research Center, and Langley Research Center) Deputy Center Directors to regularly communicate and share initiatives to foster effective relationships that promote collaboration and teamwork, best practices, and innovation for human space flight; Design, Development, Test, and Evaluation; Production and Operations; and Integration/Launch activities to enable efficiencies between Centers to promote inclusive partnerships that focus the overall launch manifests and build strategies to support each Center's mission safety and quality roles in mission success.

During his career at MSFC, Mr. Burt received numerous awards, including the Presidential Rank Award for Meritorious Executives, Exceptional Achievement Medal, and Outstanding Leadership Medal. He always seeks innovative opportunities that have a lasting impact on NASA and Federal partner mission success that spans the Federal Government to save money and improve efficiency.

Distinguished Service Medal

Mr. Ernesto Camacho

For distinguished service in transforming Kennedy Space Center into a true multi-user spaceport, enabling the Nation's space exploration goals.

With the end of the Space Shuttle Program and the start of exploration initiatives, NASA faced significant changes in human space flight leading to the transformation of Kennedy Space Center (KSC) to a multi-user spaceport. To achieve this major objective, Mr. Camacho, then serving as Construction of Facilities (CoF) Division Chief, and now as the Senior Executive and Chief of the Technical Performance and Integration (TP&I) Division, led the planning, design, construction, activation, and completion of all major infrastructure projects to transform the Center, enabling the processing and launch operations of the Artemis I mission.

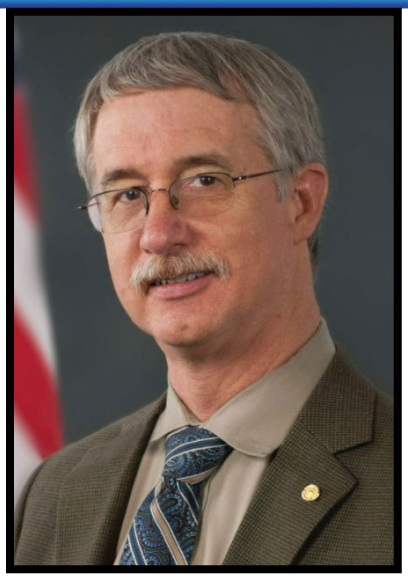
The modifications to the aging shuttle infrastructure and facilities had to be accomplished to support the launch of NASA's new launch vehicle, the Space Launch System (SLS), and vehicles from commercial partners such as SpaceX and Boeing. The Center has only witnessed this magnitude of transformation once, nearly 50 years earlier from the Apollo era to the Space Shuttle Program.

The challenge was to complete over $1 billion worth of projects under a critical schedule (nearly a decade) with limited personnel. These projects included the deconstruction and major upgrades of Launch Complex 39B, the renovation of the historic Vehicle Assembly Building including 10 retractable platforms and the high bay, and various shuttle-era utilities renovations.

In addition to his contributions for the Artemis I mission, under his leadership, Mr. Camacho was able to directly implement all associated major infrastructure modifications for supporting commercial partners. In just 3 fiscal years, under his leadership, he grew the number of projects from 54 to 109, an annual growth rate of 26.36% with no commensurate increase to the existing workforce. As a catalyst of major change, he was able to advocate for KSC's first major recapitalization project in over 50 years, replacing numerous decades-old facilities with a consolidated campus of new energy-efficient and sustainable buildings. His advocacy and leadership in these projects resulted in approximately $198,000 in electricity cost savings, avoiding 1.8 tons of carbon dioxide emissions annually, and providing a realized savings of $6.2 million/year due to a reduction in footprint of approximately 200,000 square feet.

Mr. Camacho led a staff of approximately 52 engineers to define objectives/priorities and introduced efficiencies to foster a culture of accountability with the creation of new project tracking tools and enhanced project implementation approaches measuring maximum liability and schedule performance. He implemented innovative acquisition methodologies and led large-scale evaluation boards, while training the workforce to be customer focused.

All projects related to the SLS Artemis 1 mission were completed in time for Artemis I SLS processing, integrated test/checkout, and eventual launch. As a result of his success, Mr. Camacho was selected as the Senior Executive to lead the TP&I Division (135-person workforce) that encompassed both CoF and all associated integration services such as development, fabrication, and operations of Ground Support Equipment directly supporting the Exploration Ground Systems Program for Artemis I. In facing numerous adversities, including a major pandemic that has shaped the Nation, he transformed the Center, enabling KSC to achieve the Nation's space exploration goals and fulfil space exploration to the Moon and beyond.



Distinguished Service Medal

Mr. John Childress

For exceptional expertise and leadership in Flight Operations Safety.

Mr. Childress is the Flight Operations Safety Office Chief where he impacts crew safety and enables NASA's mission success. He has been instrumental in ensuring International Space Station (ISS) crews live and work safely aboard the ISS.

The ISS safety process identifies hazards that can harm or kill astronauts and identifies Operations Controls (Ops Controls) to mitigate these hazards. Ops Controls include procedures, constraints to operating systems or vehicles, or specific training required. The ISS size and complexity have resulted in thousands of Ops Controls to track and implement. Early in the ISS Program, documents captured Ops Control agreements for tracking and verification, but this was not adequate to manage the thousands of Ops Controls identified. Mr. Childress envisioned a database to document and verify all Ops Controls were implemented correctly and negotiated with the ISS Program to modify a copy of the ISS hazard database. This resulted in synchronizing the Ops Controls and hazards and enabled tracking and verification of proper implementation. As a result of Mr. Childress' vision and work, the thousands of Ops Controls required to keep ISS crews safe have been tracked and verified over 20+ years of ISS operations.

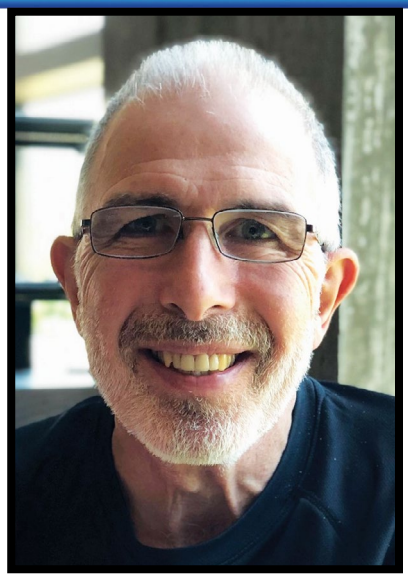
In 2013, the Extravehicular Activity (EVA) helmet of astronaut Luca Parmitano filled with water, and his breathing was impaired by water clinging to his face. A catastrophe was avoided when he was quickly brought inside. Mr. Childress tirelessly provided Mission Operations expertise to the Water in the Helmet team investigating the failure and ensured reviews were in depth and rich in technical detail. This work ultimately resulted in a successful recommendation to address the most technically challenging issue that had been encountered by the Program and restore EVA capability.

In 2018, Mr. Childress chaired the Spacecraft Technical Review Board (STRB) for the Commercial Crew Program in collaboration with the ISS Visiting Vehicle (VV) Safety Review Panel (SRP). The thorough joint review of safety requirements was fundamental to the certification of commercial transportation systems to meet the Agency's goal of safely and successfully transport crew to the ISS from the United States. He worked closely with the ISS Program, NASA stakeholders, and both providers to develop an efficient Phase III review process tailored for each provider. Through his leadership, the STRB identified several previously undocumented safety risks and failure tolerance exceptions that resulted in design changes for both commercial providers. His constant communication with the ISS VV SRP Chair, NASA stakeholders, and the provider hazard assessment teams enable support of an aggressive flight test schedule, while ensuring a thorough technical review.

Mr. Childress fills a unique role bridging the flight control and safety organizations. He is often a singular voice in recognizing that safety controls cannot be only a restriction and barrier to operations. Instead, he understands that astronauts and flight directors need capability to perform tasks with some latitude for risk acceptance rather than merely hard constraints. During STS-120 when a torn solar array required repair, he knew that astronauts would need to work near and touch an energized solar array which had generically been prohibited due to shock hazards. He balanced risk mitigations and controls with likelihood and consequence in a way that enabled the team to effect the repair.

Distinguished Service Medal

Mr. Nicholas Chrissotimos



For exceptional leadership across several NASA programs with vital contributions to NASA and the nation, enabling more than 50 NASA missions across all SMD science areas.

Mr. Chrissotimos exhibits preeminent leadership with extensive experience in the development and launch of space flight missions, now as the program manager for three NASA Headquarters programs: Explorers, Living with A Star (LWS), and Solar Terrestrial Probes (STP) and as Associate Director for Goddard Space Flight Center (GSFC) Explorers and Heliophysics Projects Division (EHPD).

With over 50 years of service to the Federal Government, Mr. Chrissotimos' commitment and perseverance have enabled more than 50 NASA missions. His early-career contributions to the Tracking and Data Relay Satellite (TDRS) project, an important national endeavor, are immeasurable. He served in roles of increasing responsibility for TDRS departing as the Deputy Project Manager for the first seven spacecraft. He later returned to TDRS on special assignment as the TDRS H, I, J Source Evaluation Board chair, where he headed a small, diverse group using an innovative approach for the evaluation of TDRS proposals. This led to a successful award of the next generation TDRS spacecraft necessary to maintain and expand the Near Space Network required to support critical space missions.

Mr. Chrissotimos has contributed to every science discipline within the Science Mission Directorate (SMD). He supported Earth science for its largest mission at the time, the Earth Observing System Chemistry and Special Flights project as the Deputy Project Manager and today continues his support by providing consultation for the next generation of Earth Explorers currently in development. He has played a pivotal role in the evolution of the Flight Projects Directorate (FPD) and its institutional organization as well as several NASA Headquarters programs. He was the manager of the Earth Systems Science Pathfinder (ESSP) implementation office at GSFC, responsible for defining and developing the program and the generation of the first ESSP Announcement of Opportunity, overseeing the successful development and launch of several critical Earth science missions. He was later appointed as Deputy Program Manager for Sun Earth Connection (SEC) programs, the home of LWS and STP. His leadership assisted FPD and NASA Headquarters with another critical reorganization that remains in place today with the successful development of EHPD. EHPD, a complex organization, has been immensely successful, supporting more missions than nearly any other at GSFC.

Mr. Chrissotimos' contributions to both astro- and heliophysics as the leader of EHPD have directly resulted in more than two dozen successful launches. His success is evident in the continued growth of the programs and projects he oversees including his current portfolio of more than 20 projects/instruments in development. He is an advocate for his missions while simultaneously providing exceptional support and oversight to GSFC and NASA Headquarters management. His leadership has led to frequent collaboration with international partners, and he has served as acting Deputy Director for FPD on several occasions, managing all FPD projects.

Throughout his distinguished career, he has gone above and beyond to share his wide-reaching knowledge and experience with others. He has been a mentor to many, both formally and informally. In his current role, he oversees the work and development of several mission managers, a position where team members often elevate to support the Center as project managers.

Distinguished Service Medal

Ms. Maria Collura

For distinguished leadership and sustained commitment and to KSC, the Office of Strategic Infrastructure, and NASA.

Ms. Collura's leadership as Deputy Director for Spaceport Integration and Services (SI) at NASA Kennedy Space Center (KSC) since 2017 was pivotal to the success of every KSC program as well as the Center's commercial and Government partners.

Ms. Collura demonstrates deft communication, team building, and exceptional negotiation skills which underpin her strong relationships with our partners, enabling her to overcome the daunting and sometimes contentious challenge of providing an array of services to a broad set of customers. Two years ago, she was selected by the Center Director to serve as KSC's Office of Strategic Infrastructure (OSI) Integrator (COI), which at the time was a newly established Agency position responsible for all aspects of facilities, environmental, and logistics functions. Ms. Collura was selected based on the role she played in the multiyear transformation of OSI into a Mission Support Enterprise Organization (MSEO).

Ms. Collura was often the voice of the enterprise and for other Centers, which illustrates the relationships she has built and the level of trust she earned from her peers. An example of this trust was when the OSI Logistics Division Director asked her to champion the change management for logistics Agencywide. Other Center COIs leveraged her influence with the Agency to ensure their voices were heard, knowing she would speak up on tough issues. Her leadership has been critical in targeting problems, negotiating solutions, socializing and obtaining buy-in for change, and posturing the organization for success through a period of considerable and sometimes difficult change. She has engaged Agency leadership to ensure there is clear understanding of the unique structure of the OSI MSEO at KSC, which helped pave the way for the complex implementation of budgets, reporting structures, and contracting strategies for OSI services. She led the timely execution of budgets and obligation of all funding (~$90 million), work that is critical to meeting KSC and Agency requirements. Her broad understanding of the unique complexities faced by KSC's OSI organization and her tenacity in championing solutions that were best for all stakeholders were critical in ensuring the success of the transformation to the MSEO structure.

Beyond her COI responsibilities, Ms. Collura is a champion and voice for change as KSC has continued to grow and evolve into the robust multiuser Spaceport it is today. She challenged Agency policies to enable sweeping new construction efforts for commercial partners and is paving the way for groundbreaking legislation to allow inclusion of partner requirements in contracts and to enable partner contributions for Spaceport capability upgrades, maintenance, operations, and sustainment; changes that will have an impact far into the future of NASA.

Ms. Collura's collaborative leadership style is the crucial denominator in KSC successfully providing, and fairly allocating, the many resources our commercial partners rely on, while not ignoring the priority of NASA programs. The trust she has earned among the leaders of KSC's commercial partners is the key to NASA's success. KSC's launch tempo has increased substantially, with 57 successful missions in 2022, well above 2021's mission count of 31 launches. Ms. Collura is poised to ensure the success of both our NASA programs and our commercial partners by providing the critical Center services needed by all who launch at KSC.

Distinguished Service Medal

Ms. Mary DiJoseph

For significant career contributions to advancing NASA's Science and Aeronautics programs for the benefit of humankind.

Ms. DiJoseph has a long history of distinguished public service which has made a profound impact on NASA mission success. She has served at NASA Langley Research Center (LaRC) since 2014 as the Director of the Aeronautics Research Directorate, a key advisor to the Center Director and senior leadership team. She has also held key roles including scientist, project manager, and program manager.

Among her accomplishments at NASA was serving as the Heliophysics Living With a Star (LWS) Program Manager. LWS provides missions to improve our understanding of how and why the Sun varies, how the Earth and solar system respond, and how this affects humans in space and on Earth. As program manager, Ms. DiJoseph demonstrated exceptional insight, leadership, and intuition to lead a complex, collaborative, $200 million-a-year program. She built strong coalitions to leverage the best of NASA, industry, and academia to successfully develop Solar Observatories, Radiation Belt Storm Probes, and a Space Environments Testbed. She provided authoritative decision making and guidance in implementing acquisition strategies and established effective strategic roadmaps and political engagement approaches that resulted in LWS meeting all its startup technical and programmatic goals.

In her most recent assignment as Director of Aeronautics Research at LaRC, Ms. DiJoseph showed exceptional leadership and foresight in directing research and development (R&D) activities of over 550 civil servants and annual budgets of greater than $280 million across 16 projects from foundational research to new aircraft development. She led the team to deliver on commitments amid the coronavirus pandemic. Through her close collaboration with Langley leaders, increasing partnerships with other Aeronautics Research Directors at other Centers, close and productive working relationships with Aeronautics Research Mission Directorate (ARMD) program directors and administration, and her establishment of safe, geography-agnostic working environment practices with LaRC project teams. LaRC was able to safely accomplish well over 300 critical R&D milestones advancing sustainable aviation, high-speed flight, Airspace for All, and advanced air mobility national goals.

Some of her most notable achievements include development of a partnership with the Science Mission Directorate and Boeing for aircraft emissions testing, gathering key data and technology assessment toward accomplishment of the Nation's 2050 Net-Zero emissions goal; executing the first-ever acoustic flight test of an urban air mobility vehicle with Joby Aviation advancing this emerging aviation market toward reality; managing multiple Transonic Truss Braced Wing wind tunnel tests with Boeing to mature key technologies with the new wing design for increased fuel efficiency on the next commercial transport aircraft of the 2030s; oversaw critical hypersonics research and testing for the Department of Defense critical to national security, and parallel testing toward a commercial high-speed aircraft to accelerate the transport of goods and people; and development and testing of operational algorithms for the Federal Aviation Administration and industry that could improve the efficiency of air travel by 15-20%.

Ms. DiJoseph's career of distinguished public service has provided a profound and indelible impact in delivering significantly improved project and program performance, groundbreaking science, and advanced aeronautics research programs.

Distinguished Service Medal

Mr. Charles Dingell

For a career of exceptional leadership and technical contributions to NASA's human space flight programs.

Mr. Dingell has had a remarkable career at NASA, fulfilling strategic influential leadership roles to enable decades of success within the human space flight programs.

He started his NASA career in 1986 as an Astronaut Flight Systems Instructor, then served as a Space Shuttle flight controller in the Mission Control Center at NASA Johnson Space Center (JSC). He then served as the Section/Group Lead of the Space Shuttle Environmental Systems flight controllers. Mr. Dingell later moved to Engineering to serve in a systems leadership role on the X-38 Project, progressively taking on more system responsibilities which led to being named as the X-38 Project Chief Engineer.

Mr. Dingell has spent the last 17+ years serving as a Chief Engineer for the Orion Program. He has performed several key technical leadership roles since inception of the Program in 2005. He was the Source Evaluation Board Technical Lead for award of the Phase 1 contracts in 2005, and after contract award, led the NASA insight/oversight team as well as led definition of spacecraft architectural planning studies, which included advancing the performance level of the spacecraft with modern technologies. He was instrumental in defining the spacecraft architecture and achieving a safe, robust spacecraft design which led to the delivery and integration of the Orion spacecraft with the Space Launch System in 2021 in preparation for the Artemis I flight test in 2022, execution of the highly successful Exploration Flight Test-1 (EFT-1) in 2014, as well as the successful Pad Abort-1 flight in 2010.

Mr. Dingell also served as co-chair of the Safety and Engineering Review Panel, where he has led integration and direction of the engineering team through the Orion Safety Review process, culminating in successful completion of a series of Phased Safety Reviews for the full spacecraft. He has always been known as a strong problem-solver. On the Orion Program, Mr. Dingell was the NASA lead for resolution of numerous system or component anomalies, and the principal NASA point of contact working with the prime contractor Chief Engineer. Of the many issues experienced leading up to the flight of EFT-1 and the delivery of Orion for Artemis I, some 500+ of those rose to the highest level, the Failure Review Board, where Mr. Dingell served as the NASA lead and voting member. In serving as the NASA lead during Failure Review Boards, Mr. Dingell exercised sound judgment in determining which problems needed to be fixed, vs. which problems represented acceptable risk. he also promoted concepts for resolving late issues in ways which allowed resolution without major hardware redesign or flying with increased risk while minimizing impact to the Program cost and schedule.

Mr. Dingell has regularly communicated with hundreds of NASA and contractor personnel, spanning across the Program, Directorate, JSC, Agency, and contractor staff. He is known for his broad spacecraft systems understanding, and ability to interact with a wide variety of discipline specialists. Additionally, he has on many occasions been able to distill complex technical issues into understandable and actionable descriptions of the issue and options, allowing the Orion Program Manager to understand the risk posture and make decisions. From inception of the Program through execution of several successful flight tests, Mr. Dingell is seen as a pillar within the Agency.

Distinguished Service Medal

Mr. Jason Edge

For distinguished service, outstanding leadership, and professionalism, serving in multiple positions in the NASA Office of Procurement in support of Stennis Space Center.

Mr. Edge serves as Associate Procurement Officer and Lead Construction Officer within the Office of Procurement (OP), in support of the Agency, NASA Stennis Space Center (SSC), and OP mission of advancing space exploration and NASA's strategic goals.

Prior to joining NASA in 2000, Mr. Edge served as a contracting officer in the U.S. Air Force. His knowledge and application of procurement best practices allowed him to develop into one of NASA's premier contracting officers. He is responsible for the award and administration of all construction contracts at SSC valued at over $90 million to date.

Mr. Edge has been instrumental to overall success of NASA, evidenced by his key leadership in development of SSC's first major $700 million Multiple Award Construction Contract (MACC). This unique contracting approach realized significant savings in new construction costs over prior approaches and contributed to the Agency's refurbishment of the B-2 test stand. Under his leadership and guidance, the $3 billion MACC II serves as an Agency vehicle that is being utilized by most Centers. There are 40 task orders awarded under the MACC II with a combined savings of $33.5 million. He directs 5 contract specialist/contracting officers to procure and administer 35 contracts/task orders valued at $51 million. Contracting officers and specialists from other Centers assigned to work construction contact him regularly for advice and assistance.

Mr. Edge's significant contributions while administering Work Package 3 for the B-2 Test Stand Renovation for the Space Launch System (SLS) Core Stage Green Run Test saved NASA $529,739 on 20 modifications. At the completion of the task order the contractor submitted 12 Requests for Equitable Adjustments (REAs). Through negotiations, he settled 6 REAs, saving NASA $752,954. He spent over 9 months negotiating the remaining REAs; ultimately NASA and the contractor could not come to agreement. In 2019 the contractor submitted five certified claims totaling $15,458,007. He issued a Contracting Officers Final Decision that the contractor appealed to the Armed Services Board of Contract Appeals. Four of the five claims were tried. The judge ruled in NASA's favor by denying three of the four claims, or $9,511,871. The judge ruled partially in favor for NASA and the contractor on the fourth claim. Mr. Edge successfully negotiated an agreement for the fifth claim without going to trial, saving NASA an additional $3,008,276. After nearly 5 years, all five claims were settled. Out of a potential liability of $15,458,007, NASA paid the contractor $1,359,000, roughly 8.7 percent of what was claimed, resulting in a 91.3 percent cost avoidance for NASA, or about $18.3 million.

Mr. Edge also assisted the NASA Headquarters Office of Procurement in reviewing the Mobile Launcher II (ML2) project, a contract awarded and managed by Kennedy Space Center. His team was tasked with assessing the ML2 contract to include contract administration and oversight to identify and recommend potential improvement areas to the existing contract and/or alternate courses of action. He also served as a member of a ML2 Recovery Evaluation and Implementation Team to solve one of the most important critical challenge impacting the future of Artemis lunar missions. His insight was key to the team providing the Exploration Ground Systems program with meaningful guidance for a path forward, which will facilitate the launch of the SLS Block 1B variant into lunar orbit.

Distinguished Service Medal

Dr. David Glass

For exceptional impacts to the success of hypersonic vehicles development research efforts on thermal, structural, and material aspects.

Dr. Glass, who leads High Temperature Materials efforts in support of the NASA Hypersonics Technology (HT) Project within the Advanced Air Vehicles Program at NASA Langley Research Center, is an internationally recognized expert in thermal, structural, and material aspects for hypersonic vehicles and has given invited presentations on thermal protection systems (TPS) and hot structures at numerous international conferences.

He has made significant contributions to many of the United States hypersonic demonstrators over the past 30 years. Most of his effort has focused on refractory composite hot structures, utilizing carbon/carbon (C/C) and ceramic matrix composites for hot airframe structural components such as leading edges, control surfaces, and aeroshells. He also performed research on cryogenic tanks during NASA's X-33 program.

The HT project coordinates closely with partners in the Department of Defense (DoD) to leverage its investment in flight activities that develop and validate advanced physics-based models. At the same time, the DoD leverages NASA expertise, analyses, testing capabilities and computational models. In his collaborations with DoD, Dr. Glass is the Defense Advanced Research Projects Agency (DARPA) Materials Integrated Product Team Lead for the Tactical Boost Glide (TBG) program where he leads and coordinates the Government oversight of the structures, thermal, and materials aspects of the elevated-temperature components development, fabrication, and testing. His continued leadership and collaborative style are critical to the ongoing success of the HT project and DARPA missions.

His collaborations with DARPA and DoD continued during a phase when NASA hypersonics research was not heavily supported, and his efforts helped to maintain NASA's presence in the hypersonics community. Based on his deep understanding of hypersonic vehicles, Dr. Glass has identified numerous technical shortfalls that have needed further development. He has worked with DARPA to "lean forward" on the required development in materials characterization. One example of such a development is the generation of an extensive database for C/C materials, which are heavily utilized for TBG flight vehicles. However, the required property database and understanding of how the structures perform at elevated temperatures was not adequate prior to Dr. Glass' efforts. The C/C database created under his leadership has been instrumental for the preliminary design of TBG flight vehicles. The database was also utilized by the NASA Mars Sample Return team in its evaluation of a C/C heat shield.

Dr. Glass' dedication and passion have facilitated a transformational shift in the use of TPS and hot structures for hypersonic vehicles. His sustained efforts with DARPA and DoD have led to over $8 million a year in support of NASA high-temperature materials research spanning a decade. He has six interagency agreements with DoD which are indicative of his technical expertise and the confidence that the DoD has in his ability to provide value-added products.

Dr. Glass has been honored by both DoD and NASA for his work toward hypersonic vehicles. Dr. Peter Erbland, DARPA Program Manager, noted: "Dr. Glass is recognized by OSD (Office of the Secretary of Defense), DARPA, and the military services as a trusted national authority and leader in refractory composite material systems and their application to structural designs."

Distinguished Service Medal

Mr. Jay Henn

For exceptional and innovative leadership demonstrated through the transformation of NASA Headquarters, in pursuit of further enabling the NASA Mission.

Mr. Henn has consistently demonstrated exemplary leadership, sustained performance, and exceptional service that yield high-impact results. His most recent leadership of the NASA Headquarters Operations Office transformation is another notable achievement in a distinguished career.

Mr. Henn spent the first half of his career in technical program offices, beginning with the Office of Aeronautics and Space Technology and concluding with the Aeronautics Research Mission Directorate. Among other notable achievements, he formed and led a multi-Center team to develop "corporate management of facilities" to sustain major research facilities in a complex, full-cost environment. The new management model played a key role in renewing the NASA/Department of Defense (DoD) National Aeronautical Test Alliance, a collaborative mechanism for the strategic management of the Federal Government's aerodynamic and aerothermodynamic research and test facilities.

Throughout his career, Mr. Henn has strongly advocated and practiced strategic human capital management. He has developed non-supervisory team leaders, instituted succession planning, and hired employees from outside the Agency to gain fresh perspectives. He also represented the mission on numerous Agency-wide initiatives, including the Core Capability Assessment, the Critical Infrastructure Protection Team, and the Real Property Strategic Planning Team. He later held multiple leadership positions within the mission support community. As Deputy Assistant Administrator in the Office of Human Capital Management (OHCM), he brought a customer perspective to the restructuring and reprioritizing of ongoing initiatives. Mr. Henn's leadership enabled OHCM to reallocate personnel and fund higher payoff initiatives, without sacrificing support to programs and employees.

During his tenure in OHCM, Mr. Henn stood up the Agency's first dedicated Office of Internal Controls and Management Systems, ensuring that NASA leveraged adequate management systems and procedures to prevent the misuse of financial, programmatic, and human resources. He successfully integrated internal control activities into NASA's overall governance structure by relying on existing management, oversight, and review mechanisms, thereby making line management accountable for internal control reporting and results. His innovative approaches were soundly endorsed by the NASA Inspector General and well-received by both Agency and Center management.

Mr. Henn is known for his decade of service as the "Mayor of Headquarters" – Executive Director of Headquarters Operations. In this capacity, he provided the executive leadership and oversight for the services and products required to support the effective operations of NASA Headquarters. His purview included Facilities Services, Information Technology, Human Resources, Equal Opportunity and Diversity, Logistics, Financial Management, and Procurement. As Executive Director, Mr. Henn played a central role in guiding Headquarters' effective response to the Coronavirus Disease 2019 (COVID-19) pandemic. In June 2021, Mr. Henn was named Director of the Mission Support Operations Office within the Mission Support Directorate (MSD). As part of the MSD's Senior Leadership Team, Mr. Henn supported NASA's efforts to prioritize and transform mission support service delivery, reduce operational risk, and ensure agility, strategy, and readiness in supporting NASA's complex and evolving missions.

Distinguished Service Medal

Dr. Paul Hertz

For leadership excellence, ingenuity, vision, and unwavering commitment, which have resulted in the advancement of NASA and United States' interests.

Dr. Hertz has had an illustrious career at NASA and has been at the helm of the Astrophysics Division (APD) within Science Mission Directorate (SMD) since 2012, directing a ~$1.7 billion annual program of space missions, suborbital investigations, research, and technology development focused on discovering how the universe works, exploring how it began and evolved, and searching for life on planets around other stars. He has exhibited outstanding and sustained leadership qualities advancing the Agency's astrophysics priorities for the United States and the world.

Dr. Hertz' leadership has been consequential in steering astrophysics and SMD for years to come, starting and enabling many initiatives that were first implemented in APD. He started the Dual Anonymous Peer Review practices for most of the Division solicitations; pioneered Inclusion, Diversity, Equality, and Access plans as part of a test pilot in the Astrophysics Theory Program; introduced Codes of Conduct for panel members and panel monitors; and promoted pre-decadal studies of 14 missions (4 large and 10 probes) that included more than 400 community members.

As APD Director, Dr. Hertz was directly responsible for implementing the 2010 Astrophysics Decadal Survey (DS), which recommended a broad program of large strategic space observatories and smaller principal investigator (PI)-led missions. Drawing upon his scientific knowledge and technical expertise, he developed the Astrophysics Implementation Plan and implemented an Astrophysics Visionary Roadmap. During a period of flat budgets, he significantly advanced DS priorities by initiating seven new astrophysics missions and leveraging partnerships, maintaining national capabilities in space science. He partnered with the European Space Agency on the Athena X-ray observatory and the gravitational wave LISA observatory; successfully led our next great observatory, the Roman Space Telescope, from formulation into implementation; executed an accelerated and dependable series of solicitations for PI-led missions; partnered with the Japan Aerospace Exploration Agency to develop the X-Ray Imaging and Spectroscopy Mission, and collaborated with the National Science Foundation to advance NASA's strategic needs for ground-based observations of exoplanets. He established four mission concept study teams providing consequential input to the 2020 DS, which has identified the next generation of great observatories, those that will follow James Webb Space Telescope and Roman. Before his time as APD Director, he was the SMD Chief Scientist, when he developed the Agency's first omnibus NASA Research Opportunities in Earth and Space Science. Since then NASA has received over 50,000 proposals and made more than 12,000 research awards to universities, NASA Centers, and other organizations worth over $600 million annually.

Under Dr. Hertz, more than $5 billion of space flight missions and instruments were acquired through Announcements of Opportunity that he developed, including missions to the Moon, Mars, and Jupiter, as well as missions to study the Earth, sun, and universe. His leadership, programmatic insight, knowledge, and exceptional efforts have ensured that APD is not only recognized within the Agency for its achievements but referred to internationally as a leader in innovative science and application.

Distinguished Service Medal

Mr. Howard Hu

For distinguished service ensuring the success of the Orion Program and Artemis Mission.

As Orion Program Manager since 2022 and Deputy Program Manager (2020 – 2022) at NASA Johnson Space Center, Mr. Hu leads the implementation of the Orion program goals and objectives, and is responsible for the design, development, production, and operations of NASA's newest human exploration spacecraft which will carry astronauts on Artemis missions to the Moon. He oversees over 2,000 civil servants and contractors across 5 NASA Centers and various contractor locations and administers a $1.4 billion annual budget.

In his 30-year career, 15 years on Orion, he has had an indelible and profound impact on the Agency's goals. When Americans see Orion at the top of the Space Launch System (SLS) on the nightly news, they see Mr. Hu's 15 years of hard work and management.

In 2020, Lockheed Martin submitted a $600 million proposal to design, develop, test, and integrate a Rendezvous, Proximity Operations, and Docking (RPOD) system for Orion, with availability projected for the Artemis III mission. With his experience in Guidance, Navigation, and Control and expertise on RPOD, Mr. Hu stepped in and led the prime contractor and astronauts, safety, flight operations, and engineering stakeholders to assess the key RPOD architecture elements, testing, and risks that drove the costs. Based on this evaluation, he developed a strategic vision to change the paradigm from a traditional requirements-based solution to a risk-balanced approach that focused on balancing key technical risk areas and significant cost drivers while still achieving mission objectives and crew safety. In just 5 short months, his innovative approaches resulted in less complex technical solutions that reduced implementation risk while balancing program risks and still meeting the needs of the stakeholders.

When Mr. Hu became the Deputy Program Manager for the Orion Program, he discovered a pivotal role missing: one focused on developing and delivering the Artemis I Orion spacecraft from the Orion Program to the NASA Exploration Ground Systems team for ground processing and integrated stacking with the launch vehicle. So in addition to his Deputy Program Manager duties, he took on the role of the Artemis I Orion Vehicle Manager, overseeing the end-to-end development and production of the spacecraft and providing focused leadership for the ground processing/stacking with the SLS and execution of the Artemis I mission. He managed the overall integrated critical path schedules and resolved spacecraft-level design, system integration, and production issues, working with the European Space Agency, NASA engineering and safety, and flight operations to address flight hardware safety and software defects, waivers, and deviations.

Mr. Hu completed the required Orion certification and verification milestones for Artemis I, which enabled timely handover of the spacecraft to Exploration Ground Systems. He also modernized human space flight software development, which saved 6 months of development time for Artemis II, and is now becoming a proven standard for other Agency exploration development programs. He is an excellent steward of the taxpayers' money while still enabling the Nation's exploration goals, saving over $300 million by rephasing spending, $150 million through establishing a new Orion Cost Reduction Initiative effort, and $16 million by transforming NASA's engagement on crew display development and verification, along with right-sizing the workforce.

Distinguished Service Medal

Ms. Sandra Irish

For Exceptional Dedicated and Sustained Service to NASA Through Excellence in Engineering, Outreach, Mentoring, and Support of a Diverse and Inclusive Workforce.

Over the course of her almost 40 years at NASA Goddard Space Flight Center (GSFC), Ms. Irish has continually demonstrated professionalism and the highest commitment to all aspects of her work. She has demonstrated excellence: technical leadership, outreach, mentoring, and dedication to diversity, equity, inclusion, and accessibility (DEIA).

Ms. Irish has demonstrated structural analysis leadership for a wide range of NASA flight projects including the Cosmic Background Explorer, Upper Atmosphere Research Satellite, Broad Band X-Ray Telescope, Astro-E, and, most recently, extremely successful leadership of the structural analysis and testing of the James Webb Space Telescope (JWST). Through her roles as lead structural analyst for the Astro-E and JWST projects, she helped NASA to better understand the behavior of structures at cryogenic temperatures. This has included investigating vibration test data, shock transmission, and strength and stiffness of structures at those low temperatures.

In her leadership on JWST, Ms. Irish led and supervised incredibly complex structural tests for the combined Optical Telescope Integrated Science instrument module as well as those for the spacecraft and observatory. She also supervised transportation of JWST from the test facility to the ship which carried the observatory to the launch site in French Guiana. Over the course of her career, she has worked with and garnered the respect of engineering organizations from around the world and built partnerships with engineers in Japan (Astro-E), Europe (JWST), and here in the United States. She was even recognized for her contributions to JWST in an award presented by JWST's prime contractor. Additionally, her accomplishments have been applauded within NASA through multiple Goddard and NASA Honor Awards.

Ms. Irish's career demonstrates a commitment to inspiring technical excellence in the next generation of NASA engineers. Throughout her career she mentored multiple young engineers who have grown into engineering leadership roles of their own. She is an active participant in education and outreach activities and was a frequent spokesperson at many JWST outreach and public engagement events. She participated in NASA's Summer Institute in Science, Technology, Engineering, and Research program to encourage young women to aspire to careers in science and engineering. In addition, she has presented at countless career day and National Engineers Week outreach presentations to local schools.

Ms. Irish is a consistent champion of DEIA. Through the years she maintained her commitment to celebrating the value of a diverse workforce at NASA and ensuring an inclusive environment for all employees. She was a long-time member of the Engineering and Technology Directorate's Diversity and Inclusion Committee as well as serving as a member of Goddard's Women's Advisory Committee. Perhaps most significantly, she led the effort to create the Women Engineers in Space and Technology group which provides networking and professional growth opportunities for women engineers at GSFC. That group is also affiliated with the Society of Women Engineers (SWE), and Ms. Irish supported multiple NASA recruiting activities at SWE conventions. Ms. Irish's sustained technical excellence and her continued dedication to a diverse and inclusive workforce make her a role model for both current and future engineers.

Distinguished Service Medal

Ms. Lauren Johnson

For exceptional acquisition leadership that is advancing NASA's exploration mission to the Lunar surface and beyond.

Ms. Johnson has served NASA in an exemplary way for the last 17 years as a procurement leader, advancing the Agency's exploration mission to the lunar surface and beyond. As the Manager of the Lunar and Planetary Exploration Programs Procurement Office at NASA Johnson Space Center (JSC), she leads 17 people with a procurement portfolio exceeding $42 billion in potential contract value supporting NASA's Gateway Program, Extravehicular Activity (EVA) and Human Surface Mobility Program, and the Commercial Lunar Payload Services (CLPS) Project.

Ms. Johnson has made significant contributions to improving procurement operations for her program customers. A notable example was her leadership of the development and implementation of an efficient competitive source selection process for the CLPS Project that enabled high-quality task order competitions for high-value science missions ($50-$100 million) to the lunar surface among NASA's CLPS vendors. Her efforts have enabled the competitive selection and award of 8 individual missions since inception, with an average lead time of less than 5 months from procurement strategy to award. In 2021 alone, she was responsible for the award of $280 million in CLPS contract actions, while achieving savings for the Government of over $70 million. Moreover, all of these 2021 awards went to small businesses, contributing significantly to the Agency's small business program goals.

Another notable example of her sustained performance was her leadership of the strategy development and competitive award of two $3.5 billion Exploration EVA Services (xEVAS) contracts utilizing a services model for NASA's future EVA capability for the ISS, the Moon, and beyond – a major step toward commercializing low-Earth orbit and reducing the operational cost for these critical services into the future. Ms. Johnson successfully oversaw the acquisition team achieve contract award in just over 10 months from the procurement strategy meeting. Moreover, this competition resulted in one of the contracts being awarded to a small business, again significantly contributing to the Agency's small business program goals.

As demonstrated by CLPS and xEVAS, Ms. Johnson is a champion of NASA's small business program. Aside from obligating hundreds of millions of dollars in procurement awards to our Nation's socioeconomic concerns, her Exploration EVA Mobility Unit (xEMU) project team was nominated and won an Agency 2021 Small Business Advocates Award for NASA Program and Development Team of the Year.

Ms. Johnson tirelessly serves others in a way that exemplifies NASA's image as the premier employer in the Federal Government. She is a leader in Diversity, Equity, Inclusion, and Accessibility (DEIA), leading procurement's Diversity, Innovation and Inclusion Team for the last 3 years. She was recently elected to a 2-year term as Vice President/ President Elect of the local chapter of the National Contract Management Association. Lauren was personally recognized by the Assistant Administrator of Procurement for her inspirational and impactful presentation entitled "Leadership Challenges and Remembering the Why," at the 2022 Office of Procurement Supervisory Leadership Forum. She also volunteers for Science, Technology, Engineering, and Mathematics activities at Houston's Wright Junior High School and The Galveston Ambassadors Preparatory Academy.

Distinguished Service Medal

Mr. Norman Knight

For distinguished service to NASA Human Space Flight leading the Flight Director Office and Flight Operations Directorate.

Mr. Knight, as Director of the NASA Flight Operations Directorate (FOD) at Johnson Space Center (JSC), ensured NASA readiness for the return of human space flight from American soil.

As Director, Mr. Knight leads a team of ~2,400 employees and contractors to facilitate the planning, training, and mission execution for NASA Human Space Flight missions. Flight Operations includes NASA astronauts, flight directors, NASA pilots and aviation assets (T-38, WB-57, Super Guppy, Gulfstreams), real-time Mission Control Center (MCC) command and control, and world class training facilities including spacecraft mockups and the Neutral Buoyancy Lab pool.

Mr. Knight began his career as a flight director in 2000 for the Space Shuttle and International Space Station (ISS) programs. From 2010 to 2018 he was Deputy Chief (2010-2012) and Chief (2012-2018) of NASA's Flight Director Office. There he led NASA's team of flight directors and provided technical and budget accountability for the Flight Director Office. He was responsible for human space flight operations including the ISS, new exploration initiatives, and Commercial Space Flight coordination. Mr. Knight also had a major leadership role in which he helped create the FOD from two major organizations at JSC. During his time as Chief of the Flight Director Office, Mr. Knight was directly responsible for the success of every NASA human space flight activity, chaired Flight Readiness Reviews (FRR), and ensured mission readiness. Mr. Knight worked to define, communicate, and implement change to the FRR process for the new FOD. As the Chief Flight Director, Mr. Knight commanded a team of flight directors, FOD program integrators, and FOD Operational Safety Team. His scope of responsibility crossed boundaries of NASA programs and Centers, interfacing with other governmental agencies, academia, commercial entities, and a host of international partners.

In July 2021, he was promoted to Director of Flight Operations. He has emerged as a major innovative, steady, and exceptional leader that NASA has called on for essential and major mission needs, at the forefront of American human space flight overseeing MCC, crewmembers headed to the ISS and back, and flight operations readiness for emerging space flight programs and developments such as Commercial Crew, Orion, Gateway, Human Landing System, and lunar surface.

As Director of Flight Operations, Mr. Knight continues to make an indelible and profound contribution to the NASA mission. He led FOD through the Coronavirus Disease 2019 pandemic as one of many FOD personnel deemed essential. FOD was able to continue operations of the MCC, training, aircraft operations, and the Neutral Buoyancy Laboratory, where astronauts train underwater on a mock ISS.

As the new era of a space economy emerged, Mr. Knight led FOD through significant programmatic change which included development work on Commercial Crew vehicles leading up to the first certified SpaceX Crew-1 mission and continued development of the Boeing OFT-2 vehicle. He defines and communicates the FOD operational concept plan for Artemis, Gateway development work, HLS requirement evaluation in support of an Artemis lander, and prepares NASA's future astronauts for humanity's return to the Moon.

Distinguished Service Medal

Mr. David McBride

For distinguished service contributing technical experience, management, and leadership to NASA's mission.

Mr. McBride, who began his NASA career as a co-op intern and rose to Center Director at Armstrong Flight Research Center (AFRC), fostered astonishing aeronautical progress. Mr. McBride began his NASA career in 1982 as a co-op student at Dryden Flight Research Center (DFRC), later renamed AFRC, and converted to permanent employment in 1985.

He was assigned as a flight systems engineer for the Center's high-visibility X-29 project and quickly became its lead flight systems engineer, with responsibility for all safety critical flight hardware and software. He took the same role on the X-31 project when DFRC partnered with the Defense Advanced Research Projects Agency, U.S. Navy, and domestic and international partners. He then was appointed chief engineer of the X-33 project, his third lead role on an X-plane project.

After the X-33 was canceled, Mr. McBride's career transitioned into management, serving in program and Center roles. He was program manager for the Aeronautics Research Mission Directorate Flight Research Program where he laid the foundation for current flight research projects, including the Low-Boom Flight Demonstration (LBFD). Leadership positions included executive officer, Director of the AFRC Business Development Office, Associate Director for Programs, and Deputy Center Director. He also served a detail assignment at Headquarters' Office of the Associate Administrator.

Mr. McBride was named AFRC's Center Director in 2009, a position he held for more than 12 years. He led the Center in the execution of high-risk flight research projects, aircraft-based science projects, and test projects in support of NASA's exploration missions. Significant accomplishments in support of Science Mission Directorate included system development for the Stratospheric Observatory for Infrared Astronomy aircraft, which reached full operational capability in 2014 and continued successful operation through 2022. He led the Center's Airborne Science Program missions, which included the DC-8, two ER-2s, a C-20A, and a B200 Super King Air.

Mr. McBride led AFRC in high-risk flight research projects, including the X-48B subscale uncrewed flying wing that demonstrated low speed handling qualities; the X-56 control of flexible structures project that successfully demonstrated aircraft control at airspeeds exceeding the vehicle's flutter speed; the buildup of a subsonic testbed; the successful completion of the Adaptive Compliant Trailing Edge and landing gear acoustic signature flight research projects; the advocacy and initiation of the X-57 Maxwell and the X-59 LBFD projects; and the successful Unmanned Aircraft Systems Integration in the National Airspace System project, an AFRC-managed, multi-Center project.

Mr. McBride supported AFRC's core technical capabilities, including the support and testbed aircraft fleet, test range, and the unique facilities like the Flight Loads Laboratory, the Simulation Laboratory, and the flight test data infrastructure. In support of NASA's space exploration mission, he led the Center through the successful systems integration and conduct of the Orion Pad Abort 1 flight test, booster procurement and flight test instrumentation development for the Orion Ascent Abort 2 flight test, and the innovative flight test of adaptive control laws for the Space Launch System rocket on a specially configured AFRC F/A-18 aircraft.

Distinguished Service Medal

Ms. Amanda Mitskevich

For leadership of numerous successful Agency mission launch campaigns, as well as the advisory support of key Agency missions not launched by the Launch Services Program.

Ms. Mitskevich, who has served NASA with distinction for more than 36 years, including the past 14 years as a Senior Executive, has shown exceptional vision and leadership that have enhanced NASA's role in the Nation's commercial launch industry.

Ms. Mitskevich was appointed Program Manager of the Launch Services Program (LSP) in 2010, and quickly developed into a visionary leader of about 500 civil servants and contractors. She led her organization to consistently exceed expectations despite the numerous challenges of not only the impacts from the Coronavirus Disease 2019 (COVID-19) pandemic and a challenging manifest, but also an extremely dynamic emergent commercial space market.

From the small class providers to new entrants to traditional aerospace companies, Ms. Mitskevich has strategically led her team to achieve impressive results in the mission planning and launch delivery for NASA missions. Under her management, LSP awarded the Venture Class Acquisition of Dedicated and Rideshare indefinite delivery, indefinite quantity contracts to 12 companies to encourage more launch capability for high-risk-tolerant spacecraft customers.

She continues to lead the Agency with end-to-end launch services provided by the NASA Launch Services contract and unique one-of-a-kind contracts tailored to meet spacecraft customer needs, such as the Habitation and Logistics Outpost/Power and Propulsion Element and Europa Clipper missions. Under Ms. Mitskevich's leadership, LSP has launched 101 NASA robotic/scientific missions that have enabled paramount discoveries and services to all humanity.

One of Ms. Mitskevich's most impressive traits is the continuous improvement and focus on communications that she gives not only to LSP customers and the workforce, but also to stakeholders, other Government agencies, and commercial launch providers. She enabled efficient resource sharing with the Deep Space Logistics Project Office by providing dedicated business office leadership while successfully executing and administering Gateway Logistics Services contract and project support, critical to Artemis architecture for NASA's return to the Moon.

Ms. Mitskevich has made a profound and lasting impact to NASA by providing advisory assistance to missions outside the normal LSP scope of work, such as with the James Webb Space Telescope mission that has been providing never-before-seen pictures into the universe. She also collaborates with other NASA programs such as the International Space Station Program Office by providing launch vehicle expertise to further increase mission assurance for the Commercial Crew Program and Commercial Resupply Services.

Ms. Mitskevich has been a leader for the Nation when it comes to cross-Government partnerships. She strengthened coalitions across Government agencies in procurement, manifesting, and technical areas for common launch vehicle fleets by representing and advocating for NASA missions at the Government Launch Executive Board and the Current Launch Schedule Review Board meetings with the United States Space Force and the National Reconnaissance Office. Amanda's exceptional vision and leadership have enhanced NASA's role in the Nation's commercial launch industry.

Distinguished Service Medal

Ms. Karen Oliver

For distinguished and sustained contributions in technical innovation, leadership, and mentoring in the fields of launch vehicle and payload dynamics.

Ms. Oliver has had a long and distinguished career in the field of dynamics at Marshall Space Flight Center (MSFC) and is recognized as an Agency expert. Her impressive and extensive contributions to NASA include a variety of technical and leadership roles with tenures in organizational leadership as well.

She has made tremendous contributions to the Agency in the dynamics discipline by leading the Agency-wide revision to NASA Technical Standard 5002 regarding Load Analyses of Spacecraft and Payloads. Her expertise is solicited in the initial phases of programs to establish dynamics-related requirements, most recently by the Human Landing Systems (HLS) and Mars Ascent Vehicle projects. She currently serves as the Secondary Structures and Environments Team Lead for the Structural Dynamics and Integration Branch at MSFC. Keeping her balance in contributing technically, she also serves as the Sub-Discipline Lead Engineer for the Space Launch System for vibroacoustics and shock environments and as an alternate lead for HLS insight for dynamics.

She began her career in the Component Assessment branch and quickly became known as the “go-to” person for delivering component and payload low-frequency interface loads. In recognition of her exceptional technical ability and communication skills, she advanced to Lab Lead Engineer for small payloads, where she served as liaison between Chief Engineers and Project Managers for the Spacelab and Shuttle middeck payloads.

Ms. Oliver’s frequent supervision of payload testing was vital in reducing verification time during a taxing Space Shuttle flight schedule. During the Constellation Program, her expertise and leadership skills proved invaluable as she was selected and performed the duties of chair of the Ares I Loads Panel.

Throughout her career, Ms. Oliver has consistently reached out and engaged other similar disciplined branches at MSFC, fostering strong relationships and encouraging collaboration. She has utilized her connections to provide early-career employees the opportunity to gain valuable technical expertise from across the Center. In turn, the culture she created across the Center established a legacy of communication and idea sharing leading to a weekly forum where early-career employees discuss project challenges and gain technical, programmatic, and professional advice from senior subject matter experts. She did this while balancing heavy workloads and responsibilities. Center management has recognized her planning and coordination of development opportunities for early-career employees.

Ms. Oliver’s contributions across MSFC for dynamics have included playing key roles in researching, advocating, and securing funding for pivotal software packages utilized by the discipline. She not only secured the funding, but she also helped with the software installation and licenses administration.

Ms. Oliver has served the Agency for over 35 years through her technical contributions, leadership roles, and individual mentoring. In addition to her demonstrated selflessness, her generosity is exhibited through active participation in the Combined Federal Campaign, including leading charity bus tours.

Distinguished Service Medal

Mr. Gregory Robinson

For exceptional service to NASA on the James Webb Space Telescope Program, and Science Mission Directorate Program Management.

Mr. Robinson was the James Webb Space Telescope (JWST) Program Director, accountable for mission success of the world's largest, most powerful space telescope, built to revolutionize human knowledge.

He exemplified extraordinary service to NASA since 1988. He excelled at Goddard Space Flight Center for 11 years before moving to NASA Headquarters. He began Senior Executive Service in 2005 as Deputy Chief Engineer for the Office of the Chief Engineer.

Mr. Robinson consistently contributed value aligned with national goals. On a detail as acting National Environmental Satellite, Data, and Information Service Deputy Assistant Administrator, Systems (2011-2012), he led all National Oceanic and Atmospheric Administration satellite flight and ground acquisitions. From 2013-2015, as Deputy Center Director at NASA's John H. Glenn Research Center (GRC), he led the Center's 3,200 employees and ensured the effective accomplishment of GRC's diverse portfolio of programs and projects related to propulsion, cryogenic fluids, microgravity science, expendable launch vehicles, space communications, instrumentation and controls, materials, structures, and electronics.

Mr. Robinson previously served as the Deputy Associate Administrator for Programs (DAAP), NASA Science Mission Directorate (SMD) from 2015-2018, responsible for assessing NASA programs, projects, and institutions for technical and cost effectiveness, quality, and performance.

In 2018, he led JWST through a major rebaseline, ensuring cost, risk, schedule, and technical scope were aligned and realistic, placing the Program on a successful path toward launch. Enhancing JWST mission success, he resolved and closed all 32 independent review board recommendations, a major undertaking that improved execution of current and future flagship missions. He went on to successfully complete the complex operation of launching JWST on a European Space Agency-provided Ariane 5 rocket on December 25, 2021. Leading the Program through the crucial stages of testing, transport, launch, and in-flight calibration, Mr. Robinson has facilitated the accomplishment of many "firsts" in human history, exemplifying the best of what NASA has to offer.

Mr. Robinson's foresight, depth of knowledge, and meticulous attention to detail required to execute his accomplishments are no less than astonishing. As the DAAP, he led development of the SMD Independent Review and Standing Review Board (SRB) process after the Agency disbanded the Independent Program Assessment Office, refining the SMD approaches to ensure efficient and effective independent assessment of missions at life cycle milestones and key decision points. All SRBs now operate in alignment with the SMD process Mr. Robinson developed. In 2021, Mr. Robinson also chaired the critical NASA Artemis Review Team commissioned to review the Artemis campaign and develop essential and desired content and schedules based on varied budget scenarios. An excellent motivator throughout his career, he artfully develops and retains viable and effective teams and is insightful and strategic in managing the human capital structure. As Chief Engineer, Mr. Robinson enhanced the diversity of the Office of the Chief Engineer's demographics with respect to gender, race, age, and ethnicity. As GRC Deputy Director, he championed and led the Center reorganization to align human resources around GRC core competencies to increase efficiency in executing missions.

Distinguished Service Medal

Mr. Edward Schairer

For developing innovative engineering solutions and designing several unique measurement systems that directly impacted critical NASA programs over a 48-year career.

Mr. Schairer is recognized for the development of a suite of unique imaging-based measurement methods for wind tunnel, flight, and arc jet testing that yielded critical data for several important NASA programs, including Orion, Mars Science Laboratory (MSL), Shuttle Return-to-Flight, InSight, Mars 2020, and BioSentinel.

Mr. Schairer is co-inventor of the Photogrammetric Recession Measurement (PRM) technique that yields the recession time history of ablating heat-shield materials during simulated reentry in the arc jets. He developed the unique software required to extract these measurements from video imagery. Before PRM, recession was determined by manually measuring the change in thickness of a test article before and after the test. PRM provided, for the first time, the time history of recession while the test model is in the arc jet stream. The recession data allowed engineers to develop more accurate thermal models and performance of heat shield materials that reduce risks and lower unnecessary mass margin.

Mr. Schairer and his co-inventor were awarded a patent in 2012 for the PRM technique with him as lead inventor. They were also nominated by Ames Research Center (ARC) for “Invention of the Year” (2016). PRM was used in support of the Orion and MSL programs.

He also developed a large-scale photogrammetry method to track the chaotic movements of new lightweight parachutes tested in ARC’s National Full-Scale Aerodynamic Complex (NFAC) 80x120-foot wind tunnel. He led the team that applied this methodology in support of parachute development for the Low-Density Supersonic Decelerator (LDSD) program, Capsule Parachute Assembly System (Orion), InSight, and Mars 2020. Photogrammetry measurements in such a large-scale wind tunnel are particularly challenging, and his procedures significantly reduced the time required to calibrate cameras, thereby reducing cost.

Mr. Schairer made critical contributions in the development of the Retroreflective Background Oriented Schlieren (RBOS) imaging and photogrammetry methods that allowed the mapping and visualization of rotor blade vortices in 3D space. He developed innovative post-processing software that extracts the coordinates of vortex filaments from RBOS data. Vortex tracking was successfully implemented for the UH-60 Airloads test in the NFAC 40x80-foot wind tunnel.

Mr. Schairer extended his photogrammetry methods to make Model Deformation Measurements (MDM) in the Unitary Plan Wind Tunnels at ARC, the first such measurements in these facilities. He also applied this technique to rotorcraft and is currently measuring blade displacements of a rotor in hover in the NFAC 80x120-foot wind tunnel in support of the RVLT project. One of the most powerful and useful programs he developed is his “virtual-imaging” code (“VINCI”). It is regularly used to plan imaging-based measurements in wind tunnels, arc jets, and rocket motor tests. The software is used to place cameras, lights and lasers in a virtual wind tunnel environment and quantitatively assess magnification, view angle, and light intensity.

Earlier in his career, Mr. Schairer made significant contributions to the development of Pressure-Sensitive Paint (PSP), and he is a coauthor of a definitive article published in the Annual Review of Fluid Mechanics. He also demonstrated “adaptive-wall” wind-tunnel technology in the Ames 2x2-foot transonic wind tunnel.

Distinguished Service Medal

Dr. Larry Thomason

For distinguished service, leadership, and scientific contributions to Stratospheric Aerosol Research.

Dr. Thomason is an internationally recognized authority on space-based stratospheric aerosol measurements. Throughout a 32-year career, his research and mentoring have had a significant impact on NASA's stratospheric research interests.

He developed a state-of-the-art stratospheric aerosol climatology spanning multiple measurement techniques and platforms. This climatology has become the standard used by climate models participating in the 2021 United Nations (UN) Intergovernmental Panel on Climate Change reports as well as the World Meteorological Organization/UN Environmental Program Scientific Assessments of Ozone Depletion in support of the Montreal Protocol, a global agreement to protect the stratospheric ozone layer by phasing out the production and consumption of ozone-depleting substances.

Dr. Thomason is a key member of the Stratospheric Aerosol and Gas Experiment (SAGE) II/III mission science teams responsible for developing the mathematical inversion methods for retrieval of water vapor, ozone, and aerosol properties. He has led or co-authored over 100 peer-reviewed publications, including a revised water vapor product for SAGE II observations and an examination of SAGE II/III measurements to quantify the impact/signature of volcanic events on stratospheric aerosol.

Dr. Thomason's service and leadership extend beyond NASA to the international community. Throughout his career he has been active in the Stratosphere-troposphere Processes And their Role in Climate (SPARC) project, a core project of the World Climate Research Programme that coordinates high-level research activities related to understanding Earth system processes. Dr. Thomason has promoted and coordinated cutting-edge international SPARC research activities examining how atmospheric processes interact with climate and climate change. In 2006, he co-chaired the SPARC Assessment of Stratospheric Aerosol Properties (ASAP) activity, an important systematic analysis of the state of knowledge of stratospheric aerosols. He has continued in SPARC leadership roles and is currently co-chair for the Stratospheric Sulfur and its Role in Climate (SSiRC) activity that aims to better understand the stratospheric aerosol layer, the drivers of its variability.

SSiRC Steering Committee member Marc von Hobe of Germany's Forschungszentrum Julich praised Dr. Thomason's vision for ASAP, stating, "An important quality that made him a true leader was his ability to bring together experts from different institutions and backgrounds and to foster and coordinate collaborations to identify and solve important science questions." Von Hobe praised ASAP, which "soon became a 'book of reference' that would be cited in virtually every paper addressing any aspect of stratospheric aerosol."

Dr. Thomason is well-known for his scientific integrity, equality, and honesty regarding assessments of his own work and that of others. As a senior member of the SAGE III/ISS team, he regularly reminds younger members that skepticism toward their work is necessary for producing worthy scientific results. Nurturing early-career researchers has been a prominent theme for him, with the recruitment of young scientists into NASA postdoctoral positions and then molding them into productive scientists who transition into permanent positions where they continue to make important contributions.

Distinguished Service Medal

Dr. Lisa Watson-Morgan

For distinguished service, technical excellence, leadership, and profound contributions to NASA's chief programs, including establishing Artemis Human Landing System Program.

Dr. Lisa Watson-Morgan has over a 34-plus-year career with NASA and made remarkable achievements resulting in outstanding contributions to the Nation's premier space flight, science, and exploration missions. She currently serves as Program Manager of the Human Landing System (HLS) Program which is developing systems to land future astronauts, including the first woman and the first person of color, on the Moon's south pole, a significant milestone of national importance on an incredibly rapid schedule.

Dr. Watson-Morgan led the development of the acquisition strategy and established a program office, including obtaining matrix support throughout NASA to employ over 550 personnel across every NASA Center. She pioneered a new public-private partnership operating model for NASA. This innovative operating model enables commercial industry to design the systems, with risk-based NASA insight, using performance-based, firm-fixed-price contracts. Using this new operating model, Dr. Watson-Morgan has awarded 9 firm-fixed-price contracts valued at over $4.3 billion in less than 2 years. She developed a flight hardware certification strategy and plan for human rating integrated lunar landers to achieve budgetary and schedule goals, adequately assess safety, and appropriately communicate technical risks.

Because the Artemis campaign, of which the HLS is a key part, is extremely complex, Dr. Watson-Morgan's strong, calm, and supportive leadership makes her an excellent role model for future leaders across the Agency. She has developed and maintained excellent relationships with other Artemis development programs and multiple HLS providers. Her work is not beneficial for HLS only, and it is also likely to be used as a model for future human exploration programs.

Prior to HLS Program Manager position, Dr. Watson-Morgan was the Deputy Director of the Marshall Space Flight Center (MSFC) Engineering Directorate. In this role, she led 11 Senior Executive subordinates, 1,100 civil servants and 1,200 support contractors working on some of the Agency's flagship programs such as Space Launch System Program, Commercial Crew Program, and International Space Station (ISS) Program.

During her tenure as Deputy Director, she implemented two significant cultural changes in Engineering, strategically aligning the Directorate for future success. The first change focused on risk leadership including role of assessing and explaining risk and providing options to programs and projects to fit within their schedules and budgets. The second was how to succeed in the public-private partnership model, which became an integral part of the HLS Program's strategy.

As MSFC's Chief Engineer, Dr. Watson-Morgan led accelerated delivery of four ISS life support system Fluids Control Pump Assembly (FCPA) units. With her leadership, the team delivered 4 FCPAs within 9 months, with 3 of the 4 units delivered within 5 months.

Distinguished Service Medal

Ms. Julie Kramer White

For a distinguished career managing numerous profound NASA engineering milestones while establishing the future of global human space flight engineering collaboration.

Ms. Kramer White, in her 35-year career at NASA, has been at the forefront of programs including the Space Shuttle, ISS, Orion, and Artemis, and has laid the groundwork for a new future of collaboration in the next era of human space flight.

She started her NASA career in the Structural Mechanics Division, learning the fundamental disciplines of thermal analysis, failure analysis, mechanical design, and stress analysis, and was eventually responsible for ensuring structural integrity of the Space Shuttle Orbiter vehicles for each flight. She also provided critical expertise and technical leadership on X-38, and the ISS, and was one of the founding members of NASA's Engineering and Safety Center after the Space Shuttle Columbia accident.

From 2006 to 2017, Ms. Kramer White was Chief Engineer for the Orion Multi-purpose Crew Vehicle. She was responsible for guiding the Orion technical team in the development the first human-rated, deep-space exploration vehicle since Apollo, ensuring completion of major milestones for the vehicle in time for Artemis I testing and launch. Ms. Kramer White then transitioned to the role of Deputy Director of Johnson Space Center's (JSC) Engineering Directorate. Currently, she serves as the Director of the Engineering Directorate, JSC's largest organization. In this role she oversees approximately 800 full-time equivalent and 1,700 work-year equivalent employees, manages a $478 million budget, and is responsible for providing engineering, development, and test support for NASA's most essential programs including the ISS, Orion, and Advanced Exploration Systems programs.

Her contributions in this role have had an indelible and profound impact on the NASA mission in the new era of NASA's lunar ambitions and the commercial space economy's development. Ms. Kramer White oversaw the conclusion of the Exploration Extravehicular Mobility Unit (xEMU) project. This project created the next generation spacesuits which will be worn by Artemis astronauts in the lunar orbit, on the Moon's surface, and eventually to Mars. The new suits will vastly advance technology for NASA astronauts, who have been using EMUs designed 45 years ago for the Space Shuttle Program.

Ms. Kramer White championed the "Big Idea," the next step as NASA adapts to the commercial space economy and envisions an open-source collaboration environment bringing together all Centers, industry, academia, and international partners to work on exploration conceptual design and development. She secured the funding through extensive collaboration and building of advocacy across all 10 Centers, 5 mission directorates, and multiple NASA organizations.

This Big Idea for investment has been characterized by stakeholders as "game changing" for the Agency in its ability to advance its leadership and integration position. This allows NASA to invite the global community to collaborate on its exploration objectives. NASA's Exploration Collaboration Environment would be a vehicle to drive not only collaboration, but investment in digital engineering and cyber/data security to enable truly open collaboration while protecting intellectual property and regulations safeguarding national security information.


Distinguished Public Service Medal

Distinguished Public Service Medal

Ms. Lori Costello

For outstanding service in the integration, issue resolution, and leadership as the SpaceX Crew Dragon Product Manager in support of the Commercial Crew Program.

Ms. Costello's sustained excellence as the SpaceX senior Crew Dragon Production Manager enabled more than 2 years of crew presence on the International Space Station (ISS).

The transition from test flights to service missions while simultaneously retiring issues found in flight and certifying reuse of the capsule was full of opportunities for delays or, even worse, accidents. Ms. Costello's role in protecting the lives of 22 astronauts over six missions enabled NASA a crew presence on ISS, thus protecting a $100 billion asset. The crew performed science and research during an extraordinary period that lacked an alternate means for crew transportation to low-Earth orbit.

She has been responsible for assuring every aspect of the spacecraft is ready for integration with the launch vehicle in time to support the NASA crew rotation schedule. This included setting up the process with NASA integration leads for all the tasks needed for every hardware component, subsystem, capsule, and trunk to successfully go from acceptance testing to the facility for integration, incremental checkouts, issue resolution, modifications to address issues, all while balancing up to five Dragon capsules in the processing facility at any given time. With a near infinite number of challenges, and NASA teams needing to sign off on thousands of decision points, Ms. Costello shined with her can-do attitude, exceptional communication skills, and a rare technical sense of knowing what needs to be fixed and making that the priority.

Ms. Costello demonstrated critical skills and clear judgement in crafting practical technical solutions with NASA to protect crew safety. During processing activities, she worked closely with the NASA team to ensure that any issues or risks identified were communicated and resolved with the right technical experts involved. In one example, she tackled the upgrades to the Dragon propulsion system to address findings in a 2019 accident investigation that required addition of safety-driven components to the vehicle. Another example was the investigation of the Inspiration 4 waste management leak that required invasive inspections and refurbishment to assure the leakage did not lead to hazardous corrosion of flight critical structures as well as implementing mitigations to not repeat the issue on ISS missions. She also was instrumental on addressing a crew hatch issue that was discovered just prior to a crew launch that would have negated a crew egress path; her leadership and technical excellence drove the issue to the root cause and successful corrective actions.

Ms. Costello worked tirelessly with her team to ensure ground personnel at the SpaceX Hawthorne and DragonLand facilities, hardware, and procedures were ready to support each launch. Many of the activities conducted leading up to launch produced valuable lessons learned and opportunities for improvement that Ms. Costello worked with the NASA team to document, track, and implement her vision to each future flight safer than the one before. As an outstanding leader, engineer, and visionary, her performance directly supported the NASA Strategic Objectives to "Develop Capabilities and Perform Research" on ISS by enabling Dragon to safely continue operations, as well as "Enabling a Commercial Market" in making SpaceX a proven, reliable partner for NASA.

Distinguished Public Service Medal

Dr. David Crisp

For exceptional service to NASA by an indelible impact on international coordination and global understanding of space-based monitoring and observation of greenhouse gases.

Dr. Crisp recently retired from the Jet Propulsion Laboratory (JPL) after more than 36 years as a research scientist there. Few scientists have done as much for NASA, its Earth Science program, and the international community.

He worked on projects including Voyager, Hubble Space Telescope, and, perhaps most significantly, the Orbiting Carbon Observatory (OCO) series of satellite instruments. His publication record is extensive, with an overall H-index of 87 (a measure of a scientist's publications and citations). Few NASA scientists achieve such an extensive publication record with such a high citation rate.

His work on OCO is especially important, particularly in the current context to address climate and global change for which greenhouse gases (GHGs) like carbon dioxide (CO2) measured by the OCO instruments constitute the primary forcing agent and which are the subject of active international negotiations. The need for rigorous, well-calibrated, and widely accepted data on global CO2 distributions has never been greater, and Dr. Crisp's leadership and advocacy in this area was central to not only NASA's activities, but the full global effort. Dr. Crisp was principal investigator for the original OCO satellite project funded under NASA's Earth System Science Pathfinders program. The development of the satellite was challenging, because it needed high precision to identify small variations against a large background signal, and then to turn those variations into scientifically useful knowledge about sources and sinks of CO2, both natural and human-induced.

An OCO launch failure in 2009 delayed available observations until NASA was able to launch OCO-2 in 2014 and OCO-3 in 2019. As part of the planning for OCO-2, Dr. Crisp became the science team leader and assured that the team would be ready to produce the needed data from the instrument at launch. The focus on having high-quality algorithms to meet the rigorous standards and a robust calibration/validation effort to demonstrate accuracy assured the ultimate widespread acceptance of the OCO products, and set a foundation for follow-on missions from space agencies in other countries.

Dr. Crisp led highly constructive interactions with foreign partners with similar interests and activities, vectoring lessons learned, mutual calibration/validation, and data sharing. In particular, he worked closely with colleagues in Japan following their 2009 launch of Greenhouse Gases Observing Satellite (GOSAT) so that Japanese and U.S. scientists could work together, share data, address algorithms, and look to understand the implications of their data for studies of global carbon cycling. The close interaction and joint research experience prepared NASA scientists to provide products for OCO-2 after launch. Through such essential coordination and advocacy, Dr. Crisp became widely recognized and respected in the international community for his knowledge and constructive approach, and became a sought-after speaker, panel member, and author, especially for activities such as the Joint Working Group on Climate of the Committee on Earth Observation Satellites and the Coordination Group on Meteorological Satellites. Through these activities, Dr. Crisp has been a strong advocate for future observations that expand upon those achieved by OCO, in service to NASA and the United States as the world leader in measuring global greenhouse gases.

Distinguished Public Service Medal

Mr. Leslie Deutsch

For distinguished service and leadership in developing and deploying communications technologies that have transformed NASA planetary exploration.

Mr. Deutsch's career is distinguished by innovation in space communications technologies and their infusion into practice. His vision of transforming space missions through technology became reality as he led NASA programs for more than three decades.

Especially impactful have been his solutions for daunting challenges faced by outer planet missions, including two that experienced major spacecraft anomalies. His early 1980s work established him as an expert in space communications. He analyzed Reed-Solomon (RS) convolutional coding and accurately predicted its performance as NASA's standard for deep space missions, resulting in two patents. His modeling of Deep Space Network (DSN) antenna arraying increased data rates by 3 to 4 times, enabling the science return from Voyager's Uranus fly-by. He analyzed DSN plus Very Large Array (VLA) arraying to offset losses due to Neptune's greater distance and resolved a technical concern with VLA data gaps by determining that RS coding would mitigate the issue. DSN antenna arraying played a key role in doubling the Voyager science return at Neptune.

Mr. Deutsch's managed the DSN portion of NASA's Advanced Systems Program. He focused this program to advance many crucial new capabilities: DSN Beam Waveguide Antennas; DSN Ka-band downlink systems; demonstrations of Ka-band Link Mars Observer and Galileo Optical Experiment (GOPEX), the first use of deep space optical uplink; first DSN digital receiver; turbo codes development in the DSN; and implementation of Delta-Differenced One-Way Range, the most accurate deep space plane of sky measurement available. His vision for DSN efficiency improvements to automate remote operations recently resulted in a 40% reduction in DSN operating costs, saving NASA tens of millions of dollars per year. His leadership in NASA's X2000 Program presaged use of small, low-cost spacecraft to transform space exploration.

During the 1990s, NASA faced the failure of the Galileo's high gain antenna (HGA) and a potential mission loss; without the HGA the data rate at Jupiter would be only 10 bits a second instead of 134,000. Les co-led a study that came up with a fourfold solution: antenna arraying, new data compression algorithms, new coding algorithms, and signal modulation changes. His recommendations saved the flagship mission.

Cassini, another flagship, operated 1997-2017 and carried a European Space Agency (ESA) Huygens probe to land on Saturn's moon Titan in 2005. The Huygens-Cassini radio link was not fully tested before launch. A 2000 DSN test determined that Huygens' Doppler would be outside the range of what the relay radio could process, causing total data loss. Mr. Deutsch co-led a NASA/ESA joint panel to a diagnosis and a solution: changing Cassini's trajectory and onboard parameters to limit the Doppler and ensure data integrity. Huygens survived for 72 minutes on Titan and relayed 350 electrifying images from the surface.

As Chief Technologist for JPL's Interplanetary Network Directorate, he developed a roadmap for NASA's DSN. As Directorate Deputy Director since 2013, he joins all the NASA Center Technology Program reviews and has steered the NASA toward new low-cost paradigms he championed years earlier, as well as the first deep space optical communications system he helped pioneer. Mr. Deutsch's solutions to complex problems have rescued NASA missions valued at billions of dollars. His vision for the future of space exploration has led to key new capabilities at lower cost.

Distinguished Public Service Medal

Dr. Dariush Divsalar

For distinguished service and for breakthroughs in communications theory and in deep space communications coding, transforming NASA's capabilities in solar system exploration.

Dr. Divsalar's innovations and inventions over four decades in communications technology, particularly error-correcting codes, have led to vast increases in the volume of science data returned reliably from a broad spectrum of NASA and international space missions, profoundly impacting current and future courses of NASA's planetary exploration.

Dr. Divsalar was the principal intellectual force behind the development of two types of error-correcting codes now in widespread use by both NASA and non-NASA missions: turbo codes and low-density parity-check (LDPC) codes. Turbo codes were a major technology breakthrough, enabling severely power-constrained space missions to double their data return. LDPC codes enabled bandwidth-constrained missions to achieve high data rates and high reliability at near-optimal power efficiency. His code designs are now a standard of the Consultative Committee for Space Data Systems (CCSDS), the international body that promotes interoperability between national space agencies.

Dr. Divsalar's new LDPC codes enable support for data rates as high as 1 gigabit per second, 500 times higher than rates supported by turbo codes. NASA has invested in LDPC codes at its deep space and near-Earth ground sites and on space radios, are baselined for use in the Artemis program, and are essential for realizing NASA's vision for future human Mars exploration. Dr. Divsalar co-invented serially concatenated convolutional codes (SCCC) in which convolutional codes are concatenated in series rather than in parallel as in turbo codes. SCCCs have been added to the CCSDS standard, and the SCCC concept underlies the serially concatenated codes adopted by CCSDS for NASA's high photon-efficiency optical communications. He developed important techniques to rigorously analyze the performance of turbo, SCCC, and LDPC codes.

His extensive publications and more than two dozen patents make him renowned in the space communications discipline, broadly establishing key foundations of modern communications theory, including bandwidth-efficient modulation, spread spectrum, fading, ranging, and receiver design. Besides transforming deep space communications, this work also forms the basis of much of the world's cellular telephone technology. His influential publications include more than 50 refereed journal articles and 150 conference papers: his paper on multiple symbol differential detection of M-ary phase shift keying was recognized by the Institute of Electrical and Electronics Engineers (IEEE) as one of 56 key research papers in communications over a 50-year span; his paper on trellis-coded-modulation won the IEEE Transactions on Vehicular Technology's 1988 best paper award; his paper on ARA codes won the 2007 best paper award of the IEEE Information Theory and Communications societies. Overall his papers have been cited more than 18,000 times. He was awarded the 2014 IEEE Alexander Graham Bell Medal for exceptional contributions to the advancement of communication sciences and engineering. He is an unequaled leader and authority within NASA; universities and companies regularly seek his guidance for their graduate programs and research.

Dr. Divsalar's innovations in communications and coding over decades have been transformational to NASA's mission successes by enabling huge increases in data returns. His inventions are literally the standard now practiced in space and terrestrial communications.

Distinguished Public Service Medal

Ms. Winnie Humberson

For decades of outstanding service in sharing the Nation's science in innovative ways at scientific conferences and public events in the U.S. and around the world.

Ms. Humberson has over four decades of service as a contractor, and for the past 10 years as leader of the Science Mission Directorate Science Exhibits and Events Group. This group organizes and leads 30-35 meetings and events of scientific professional societies around the world per year, reaching thousands of public and scientific audiences. Consistent with the National Aeronautics and Space Act of 1958, as amended, the events share scientific results to expand human knowledge and widely disseminate that information. Ms. Humberson led a team of 20 technical experts, and organizers of NASA scientists/presenters.

Along with leading this team, Ms. Humberson ensured all outreach materials were available digitally and in person to a worldwide audience. She led the "Reduce, Reuse, Recycle" initiative to reduce energy consumption and eliminate excess waste at all NASA Science events. Ms. Humberson ensured all events were organized to be inclusive to establish and nurture strategic relationships with other organizations worldwide.

Ms. Humberson's sustained efforts and impact in the U.S. and globally with the Department of State, Department of Energy, National Science Foundation, and organizations such as the annual Conference of the Parties of the United Nations Framework Convention on Climate Change cannot be overstated. All have collaborated with NASA at her organized events.

Ms. Humberson's leadership and efforts resulted in worldwide recognition of NASA as the premier civil space agency at prominent meetings of the European Geosciences Union, the Japan Geoscience Union, and the Asia Oceania Geosciences Society. Ms. Humberson's leadership of these events was key in highlighting the value of international scientific collaboration and diplomacy. The annual American Geophysical Union (AGU) meeting is the most outstanding example of Ms. Humberson's efforts and impact. Ms. Humberson led this annual conference for the past 10 years, with the past 2 years being exceptionally challenging due to the pandemic when her team had to pivot to a virtual experience.

She also leads the annual Science Planning Guide distribution effort at AGU, which is offered in both English and Spanish. Additionally, 80,000 guides are distributed around the world annually, along with digital versions. During the pandemic, she led the virtual platform pivot engaging over 10,000 visitors and subsequently restarted the annual in-person celebration at Union Station in Washington, DC, where the NASA Administrator participated along with three other affinity societies and agencies. Ms. Humberson's superb leadership enabled the Science Exhibits and Events Group to manage complex logistics and large-scale event coordination with ease.

Distinguished Public Service Medal

Dr. Eric Jones

For superior performance in creating Apollo Lunar Surface Journal, an online archive of Apollo Moonwalkers.

Dr. Jones is the creator of the Apollo Lunar Surface Journal (ALSJ), a vast online archive that documents and analyzes the actions and experiences of the Apollo Moonwalkers with an unsurpassed level of detail, accuracy, and completeness, and is readily available to both the space community and the public.

Every moment of the descent, surface stay, ascent, and rendezvous phases of the six Apollo lunar landing missions is covered in minute detail, making the ALSJ an invaluable historical document and unique resource.

From 1989 to 1993, Dr. Jones sat down with 10 of the 12 Apollo Moonwalkers to conduct in-depth reviews of their missions, often for several days at a time. With the mission transcripts and audio and video recordings serving as reference and "memory joggers," he led them through each moment, recording and later transcribing the discussions. He then produced complete annotated transcripts for each mission, with the astronauts' comments woven into the transcripts, along with his own commentary to explain details of events, procedures, and equipment. He also tackled the enormous task of correcting any errors in the thousands of pages of original transcripts, checking key details with the astronauts, NASA historians, and technical specialists.

As a trained astronomer, Dr. Jones also brought a keen eye for scientific detail to discussions of the astronauts' geologic explorations and activities. He included valuable detail from the astronauts' postflight debriefings and other documents to amplify the astronauts' comments.

When it was first launched in the 1990s, the ALSJ website instantly became an essential resource for anyone who wanted to understand the what, how, and why of everything the astronauts did on the Moon, as well as during the six lunar landings and ascents—and the lessons they learned in the process.

Ben Feist, a multimedia software developer at NASA Johnson Space Center (JSC) with a growing interest in Apollo and its explorations, recalls that in those early days of the Internet, the ALSJ stood out as an extraordinary example of what a website could do. In the age of Artemis, the ALSJ has become an incredibly valuable resource. "I see it being referenced on a daily basis at JSC as we structure our return to the Moon on Artemis," Mr. Feist says. When his Artemis teammates need information on such details as the shorthand and symbols used on the Apollo astronauts' cuff checklists, or the specific descent and landing directory used to reach the Apollo 17 landing site, the ALSJ is "the first place to look for answers. ... Without a doubt, the ALSJ is actively enabling NASA's return to the Moon by providing a 'crib sheet' that allows all team members to easily access important lessons from Apollo."

In the years since he launched the ALSJ, Dr. Jones has utilized NASA's vast electronic archives to expand the website, infusing the transcripts with links to such resources as postflight debriefing transcripts, documentation of spacecraft, spacesuits, lunar surface tools and experiments, and lunar sample catalogs. He's also added a rich library of photographs, video clips, landing site maps, and other resources. Enlisting contributions by other space historians and specialists, he turned the ALSJ into a living document that is frequently updated as new details of the missions come to light—a process that continues even today, more than half a century after we first reached the Moon.

Distinguished Public Service Medal

Dr. James Mahan

For Distinguished Public Service over four decades supporting Climate Remote Sensing Missions to develop the World's leading Fundamental Climate Data Record of Earth Radiation.

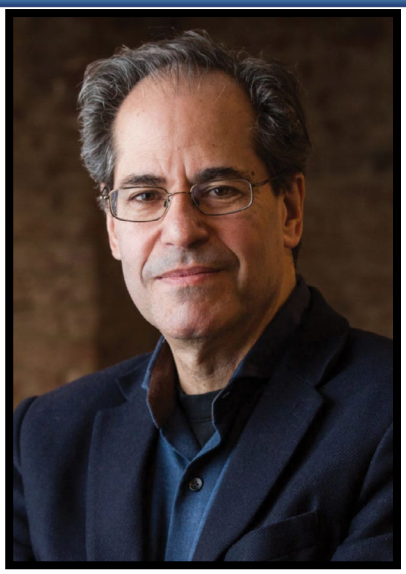
Professor Mahan's four-decade career of distinguished service to NASA has resulted in continuous advancement in state-of-the-art remote sensing instrumentation and data interpretation protocols for Earth Radiation Budget (ERB) research.

He became involved in NASA-sponsored ERB research in 1971 as an American Society of Mechanical Engineers-NASA Faculty Fellow at Langley Research Center, and in his long tenure helped develop the next generation of leaders for the international ERB community. Professor Mahan directed 16 Ph.D. and 60 graduate students and wrote 2 textbooks and over 100 peer-reviewed publications while leading his Thermal Radiation Group (TRG) at Virginia Tech. The resultant global network of scientists, engineers, and policy influencers across Government, academic, and commercial institutions is responsible for developing programs and policy to monitor climate from space- and ground-based networks, influencing European renewable energy policy and advancing United States interests in sustained governance of the ERB Fundamental Climate Data Record (FCDR).

Professor Mahan's passion as an educator and mentor of the sciences embodies the true long-term impact of his distinguished service. His diverse portfolio of technical research includes continuous advancement of novel and innovative theoretical and empirical modeling and characterization of energy flows within systems whose scales span from microscopic through global, such as radiation heat transfer in the natural environment, monitoring via ground and space-based instrumentation, directly detecting/characterizing infrared signature analyses of jet engine exhaust plumes, and the scatter and transmission of solar energy within the Earth-atmosphere system.

He has been affiliated as an institutional principal investigator and co-investigator and pioneered the development of first-principle dynamic electrothermal system models utilizing the Monte Carlo ray trace method as a key component for every major ERB Remote Sensing Program at NASA, including the Earth Radiation Budget Experiment (ERBE) and Clouds and the Earth's Radiant Energy System (CERES) missions, as well as France's CNES Scanner for Radiation Budget program. These efforts played a key role in allowing CERES and ERBE to achieve factors of 2 and 4 times greater absolute accuracy than their predecessors. Professor Mahan's TRG modeled the first-principle physics of the instrumentation, allowing continuous infusion of design improvement across programs, yielding greater accuracy of the observations and data interpretation protocols to levels never before achieved. The result of this greater first-principle understanding is a more accurate FCDR for the global scientific community, while significantly reducing the observational time needed to quantify changes in the Earth's global climate.

Professor Mahan's distinguished accomplishments and contributions, with his tenet of understanding the world better one future leader and one future remote sensing instrument at a time, have significantly advanced knowledge of the climate system, and thus the national interest, due to increased accuracy of, and confidence in, the ERB FCDR. His proactive efforts to embrace diversity of thought and perspective in his research group by recruiting and advising students from a broad range of national, ethnic, and cultural backgrounds has similarly enriched the international community of researchers he has helped develop.



Distinguished Public Service Medal

Mr. Jeffrey Manber

For exceptional leadership in pioneering the development of commercial services in Low Earth Orbit, furthering NASA's goal of developing a commercial economy in space.

Mr. Manber over more than two decades has been in the vanguard of efforts to develop a robust, commercially driven economy in space as a pioneer commercial service provider for the International Space Station (ISS) Program.

He was among the first to attempt to develop a commercially operated platform in low-Earth orbit (LEO) as the head of MirCorp in the 1990s, and was the first to approach NASA in 2009 about his company, Nanoracks, developing and operating its own commercial research hardware that would reside on the ISS. This visionary approach, years before NASA had developed its own strategic goal of enabling the development of a commercial economy in LEO, with NASA as one of many customers, has paved the way for many other companies to operate in similar fashion. As of 2021, there were 10 companies in addition to Nanoracks that own and operate over two dozen research facilities onboard the ISS, creating the first competitive environment off the Earth.

The criticality of the farseeing and imaginative approach implemented by Mr. Manber has been foundational for the space commercialization success that NASA is experiencing today. For NASA to succeed in its deep-space exploration missions, it will require a LEO platform to serve as a research laboratory as well as a testbed for advanced systems and crew training. If there are no non-NASA users of this platform, NASA would be in the untenable position of paying the entire cost to sustain and operate the platform. Thus, the commercial users of the ISS, led by Mr. Manber and Nanoracks, are developing the nontraditional user base for space services of the future.

Over a decade ago, he worked with the ISS Program to develop a set of innovative enabling Space Act Agreements that allowed Nanoracks to utilize the ISS, which have also been a pathfinder for other commercial companies partnering with the ISS Program and Agency. Most importantly, this new relationship enabled him to begin marketing to a completely new community of users other than the traditional NASA user base; to date Nanoracks has enabled launch of more than 1,300 payloads for its clients, all due to Mr. Manber's vision. This has proven crucial to building a customer base for future commercial platforms in LEO. His leadership in this arena has enabled other companies to follow, and his success caught the attention of the investor community. Within the past 2 years, several companies that developed their own hardware for the ISS have been acquired and gone public, affirming the vision that he had many years ago.

Mr. Manber's ability to serve as the sounding board not only for the new space industry, but also for NASA's stakeholders in Congress and the White House, has enabled broad acceptance of NASA's commercial goals. His ability to articulate common goals has allowed a diverse coalition to form in mutual support of this mission. He is a tireless advocate for the needs of this new industry beyond Nanoracks, and gives freely of his long experience, serving as a widely recognized expert in commercial participation in space. He is a fair interpreter of the intersection of United States (U.S.) Government needs and commercial interests, recognizing that both are crucial to advancing this new economy and our national interests. His longstanding participation in the space industry has made Mr. Manber a strong advocate of U.S. leadership in space.

Distinguished Public Service Medal

Senator Barbara Mikulski

For distinguished service and vision for the advancement of NASA.

Former Senator Mikulski of Maryland has been a true champion of the space program. She was elected to the United States Senate in 1986. Senator Mikulski served on the Senate Appropriations Committee and the Subcommittee on Commerce, Justice, and Science, eventually rising to chair the full committee.

Senator Mikulski was an influential leader in space policy. She advocated for the NASA budget, championed new NASA projects, missions, and was at the forefront for obtaining funding for Hubble Space Telescope's first servicing mission. Two decades later, she fought for the full funding of the James Webb Space Telescope (JWST), the successor to Hubble. JWST, launched in 2022, is the world's next-generation space observatory and the most powerful space telescope ever built. It is observing the most distant objects in the universe, providing images of the very first galaxies ever formed and studying planets around distant stars.

She also advocated for funding for the International Space Station and later for the Space Launch System, the rocket that will send humans back to the Moon as part of the Artemis program, and one day on to Mars. When Senator Mikulski announced she was retiring after a career that spanned four decades in first the House and then Senate, then-NASA Administrator Charles Bolden said, "Senator Mikulski has been a tireless champion for NASA, and has helped pave the way for future exploration and our journey to Mars.

"Her steadfast support for the Goddard Space Flight Center and its extraordinary science, including the Hubble Space Telescope, the James Webb Space Telescope, and dozens of missions that are expanding our journey of discovery, will give current and future generations of Americans a better understanding of our world and our universe. Her candor, passion and vision will be greatly missed.

"She has inspired future generations to study science, technology, education and mathematics and helped ensure America's continued leadership in space. We salute her service to the American people." In tributes to her on the Senate floor on her retirement, Senator Mikulski drew bipartisan praise for her steadfast advocacy for America's space program.

"She is one of the absolutely most knowledgeable and experienced members of this Senate and the entire Congress in dealing with the complexities and the needs of NASA, and she is a champion and advocate for exploration of space," Alabama Senator Jeff Sessions said. "This is an area where America has led the world, and for all her time in the Senate, she has been a champion of advocating that the United States maintain this leadership because I think we share the view that America is a nation of explorers. We are a nation that leads the world in exploring, and it is part of our DNA."

Senator Mikulski's staunch support paved the way for Hubble's rescue and the launch of JWST, and will secure our lead in astronomy for decades to come. In her own words, "Any rich nation can build a space telescope, but only a great nation gives its information away to the world to be used for the common heritage and betterment of mankind."

Distinguished Public Service Medal

Mr. Bernardo Patti

For global leadership and partnership enabling over 21 years of permanent human presence on the ISS and furthering human space exploration on Gateway and Orion programs.

Mr. Patti has been contributing to the success of the NASA's partnership with the European Space Agency (ESA) in human space flight since the late 1990s and, on many occasions, provided exceptional leadership to the International Space Station (ISS) partnership to keep it focused on its mission of the peaceful utilization of space.

Early in the development of the ISS, Mr. Patti faced the reality that NASA would not be able to provide the agreed-to interface for utilization payloads. Mr. Patti, with his team, and NASA determined a win-win approach where changes on the ESA side of the interface could be made in trade for some NASA services that gave NASA the lowest-cost solution to address the issue.

In time, Mr. Patti took on the role of the ISS Program Manager in 2008 as the ISS entered its International Partner assembly and operational phase after the Space Shuttle Columbia accident and approaching shuttle fleet retirement. As a consummate stateman and trusted colleague, Mr. Patti helped the partnership remain focused on the mission of the ISS, guiding discussions during space station control board meetings that were difficult at times.

The success of the ISS is in no small part due to the leadership and guidance Mr. Patti provided to the entire ISS partnership over his 12-year tenure as the ESA program manager. Mr. Patti, while the ISS Program Manager, also engaged with NASA in the creation of the Gateway Program to build an outpost in orbit around the Moon and the addition of the ESA Service Module to the Artemis program.

It was not until 2020 that he officially changed roles to become the ESA Exploration Program Manager. Mr. Patti's vision and leadership understood the importance of the NASA/ESA partnership and the need to grow together in the pursuit of human exploration beyond low-Earth orbit. The first ESA service module is being fitted between the Orion crew capsule and the Space Launch System rocket for Artemis II, the first human launch of the program to return humans to the Moon. Gateway preparations are well underway, another testament of Mr. Patti's contributions.

Distinguished Public Service Medal

Dr. George Rieke

For distinguished service to NASA for the James Webb and Spitzer Space Telescopes.

Dr. Rieke is the Science Team Lead of the Mid-Infrared Instrument (MIRI) on James Webb Space Telescope (JWST) and was the principal investigator (PI) of the Multiband Imaging Photometer (MIPS) on the Spitzer Space Telescope.

Both instruments required mastering recalcitrant detector technology, requiring operation at temperatures around 6.5 degrees Kelvin, or -448 degrees Fahrenheit, where typical engineering solutions no longer work. Both worked perfectly in space, and have transformed our knowledge of the universe with their capabilities. Observations from these instruments will serve astronomy for decades and make a unique contribution to human knowledge. NASA would not have achieved this without his dedication, vision, and ability.

MIRI is the pinnacle of mid-infrared (IR) astronomy; its key scientific results, in just weeks since commissioning, include extremely detailed maps of the Carina Nebula, where hundreds of new stars are being born in dust clouds that were too opaque to study with previous equipment; maps of polycyclic aromatic carbon molecules in star-forming regions; maps of the chemical composition and motions of material orbiting the black hole in Stephan's Quintet; and measurements of the spectrum of molecules in the atmosphere of a hot planet. MIRI is critical for examining the tiny infrared dots that signify extremely distant galaxies, formed soon after the Big Bang, and searching for the very first ones.

Dr. Rieke was a strong advocate for including a mid-IR capability on JWST from the earliest studies of the mission, and was willing to engage in, support and enable what was needed to make that happen. For JWST there was the additional challenge of managing a cross-Atlantic partnership, in which a European consortium was responsible for constructing much of the hardware, while the United States (U.S.) team including the Jet Propulsion Laboratory (JPL) was responsible for the detectors and the cryocooler needed to make the instrument function. Dr. Rieke's experience of NASA and JPL was essential for the MIRI European Consortium and the JPL team in working across different systems. He demonstrated leadership, vision, and a willingness to collaborate across significant international cultural differences without a formal project role, acting as "U.S. PI for MIRI" beyond his official science lead role.

Dr. Rieke is a world-leading expert in IR astronomy and was one of the pioneers of the field via single-pixel bolometers. That expertise in IR instruments, and connections at both JPL and Raytheon, was key to securing the excellent performing MIRI detectors. When it became evident that the detectors and the focal plane system had technical problems, he engaged in finding solutions and "teaching from a world expert viewpoint" about mid-IR detector technologies.

As Regents Professor of Astronomy at the University of Arizona, Dr. Rieke is a recognized community leader for astronomy, teaching generations of astronomers and serving on countless committees. He has published over 560 peer-reviewed articles, with an h index of 110 (extremely high), and written three books, including a history of the Spitzer Space Telescope, an infrared technology review, and "Measuring the Universe," Cambridge University Press, 2012, a winner of the Chambliss Astronomical Writing Award. He was elected to the American Academy of Arts and Sciences (2003), won the NASA Public Service Medal (2005), and was elected to National Academy of Sciences (2011).

Distinguished Public Service Medal

Dr. Marcia Rieke

For distinguished service to NASA for the James Webb, Spitzer, and Hubble Space Telescopes.

In a lifetime of service to NASA, Professor Rieke has held key leadership positions on the revolutionary Hubble, Spitzer, and James Webb Space telescopes.

She was the Deputy Principal Investigator (PI) for the Near-Infrared Camera and Multi-Object Spectrograph (NICMOS) on Hubble and a Co-Investigator of the Multi-band Imaging Photometer (MIPS) for Spitzer. For the last two decades, she led the development, delivery, and commissioning of the Near-Infrared Camera (NIRCam) for James Webb Space Telescope (JWST) as PI. Spectacular NIRCam images released in July speak to the success of the instrument. NIRCam will obtain the deepest images of the universe ever achieved and is expected to reveal the first galaxies to form after the Big Bang.

Professor Rieke's experience as NIRCam PI was unusually challenging throughout its development. Amid the grinding nature of technical and programmatic challenges, she exhibited remarkable persistence, resiliency, and effectiveness in providing scientific and technical leadership to her contractor and science teams, all while serving as a professor at the University of Arizona and in central leadership roles in both the 2010 and 2020 National Academy of Sciences Astrophysics Decadal Surveys.

She provided a remarkable demonstration of leadership by example during the NIRCam cryogenic test program at the Lockheed Martin Advanced Technology Center, a 24/7 effort that took months to complete. Professor Rieke worked side-by-side with her contractor team. She typically worked the overnight shift, several holidays, and many weekends. She provided a steady hand and led the team to success.

A mission-crippling stray light problem was revealed during the NIRCam's first cryogenic performance test. NIRCam was near the JWST critical path at this point. Under intense pressure from JWST management, NASA Headquarters, and the Government Accountability Office, she led a multi-institution failure review board to determine the root cause of the problem through complex optical modeling and devised a solution that mitigated the issue.

She is also willing to lead solutions, above and beyond her own responsibilities. When a design flaw was discovered in the JWST near-infrared detectors that necessitated their remanufacture and replacement, Professor Rieke ran the vendor contract on behalf of three other affected instruments that were under development by the European and Canadian Space Agencies. She did this so efficiently that the replacement detectors for NIRCam were installed several months early, enabling a major reduction in schedule risk to the JWST launch readiness date.

During the 6 months of commissioning JWST, Professor Rieke regularly worked shifts in the Mission Operations Center, during the early alignment of the telescope using NIRCam and during the final instrument commissioning, continuing to investigate and solve instrument performance issues as they arose.

NIRCam was the JWST Program's most challenging instrument development effort. This PI-led instrument project proved to be 10 times more difficult than anyone imagined when the Program began two decades ago. The instrument's outstanding performance is due largely to the outstanding performance of its PI. Dr. Rieke's consistent focus, diligence, and "lead from the front" approach under extremely difficult technical and programmatic circumstances presents an example for others to follow.

Distinguished Public Service Medal

Dr. Allan Sherman

For more than fifty years of distinguished service to expand NASA's unprecedented science and technology ambitions for the benefit of mankind.

When Dr. Sherman began his career more than 50 years ago, it was hard to imagine the extraordinary science and technology advancements the world would discover when NASA began to take shape. Dr. Sherman had a front-row seat to much of it during a career with NASA, both as a civil servant and as a contractor. His long tenure is not only extraordinary because of key leadership roles he undertook in many of the Agency's most significant and successful missions, but because the energy, dedication and drive he exhibited early in his career are the trademarks he demonstrates to this day.

He is widely recognized throughout the Agency and industry as a senior-level expert in space systems engineering and cryogenics. He assumed a leadership role as the manager of the Cryogenic Engineering Branch at Goddard Space Flight Center (GSFC) and also held leadership roles within Lockheed Martin and Ball Aerospace. He cultivated the vital relationships between NASA and its industry partners that would promote strong partnerships needed to expand the horizon of science and technology for generations.

Dr. Sherman's extended career accomplishments include key contributions to many NASA programs and missions: Apollo, International Space Station, Hubble Space Telescope (HST) and its servicing missions, various Explorer missions including the Cosmic Background Explorer, and James Webb Space Telescope (JWST). For the past 20 years Dr. Sherman has been a key contributor to the JWST Program, NASA's successor to its highly successful HST. He has been involved in virtually all phases of the mission, which will address some of the most fundamental problems in astrophysics, while blazing a trail to technologies for future NASA space telescope missions.

As a member of the JWST Engineering Review Board, Dr. Sherman chairs or participates in the technical reviews of virtually every aspect of JWST. He has applied his substantial talents to address specific issues such as the design and test of the JWST Mid-Infrared Instrument (MIRI) cryocooler, the thermal design of the JWST Integrated Science Instrument Module (ISIM) electronics compartment and spacecraft bus, and verification of the JWST thermal design. He freely offers his talents and time to all members of the JWST team, both Government and contractors, and regarded by all as the most senior engineering resource on this job.

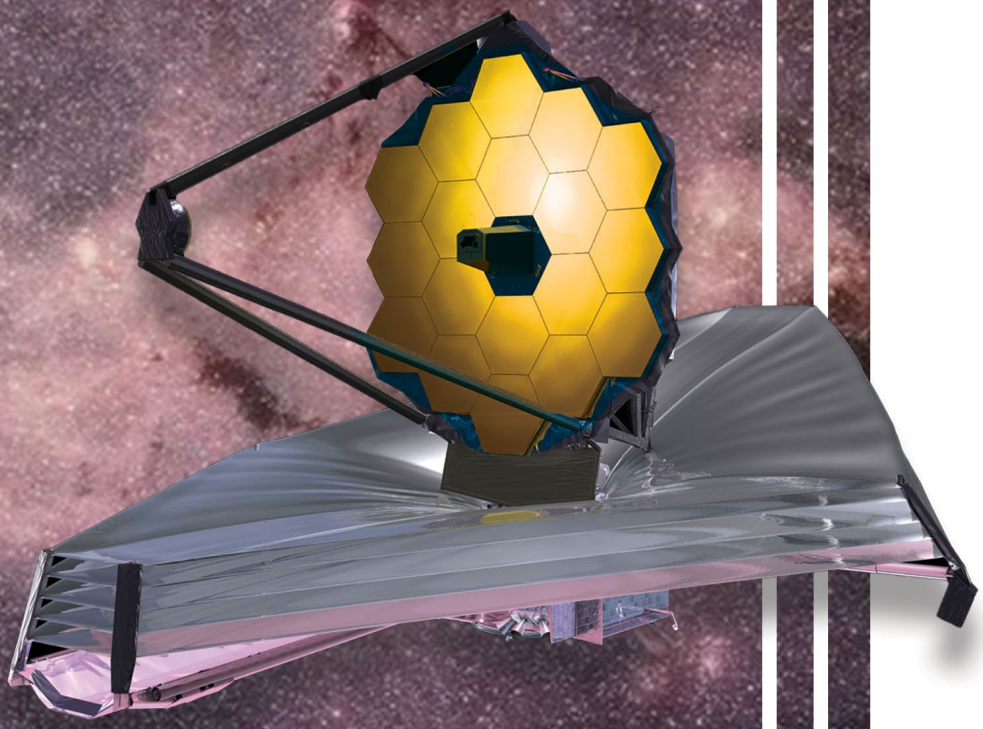
Among Dr. Sherman's specific contributions to JWST are his role in the definition of the ISIM Electronics Compartment, leading the trade study to determine whether to use a cryocooler or hydrogen dewars for MIRI, leading a team to define the success criteria for cryogenic margins for the observatory and the MIRI cryocooler, participating in virtually every ISIM subsystem and system design review, and participating in Optical Telescope Element (OTE), sunshield, and spacecraft subsystem design reviews. He served as part of the Congress-mandated Test Assessment Team, chaired or participated in every ISIM Test Readiness Review and Test Data Review, and participated in efforts to solve problems associated with refit of the Pressure Transducers and Monopropellant Rocket Engine valves and efforts to address telescope anomalies experienced during JWST's sine vibration tests.

In all these efforts, Dr. Sherman leveraged his considerable technical skills and sage wisdom that can only come from his considerable experience. He has been a mentor to at least three generations of GSFC and NASA engineers.

James Webb Space Telescope

2022 saw the launch of one of NASA's most ambitious science missions and the United States' largest investment in a single science project: the $8.8 billion James Webb Space Telescope (JWST). Because of the significant contributions of those listed here, a new era in astronomy has dawned as the world has received its first look at the full capabilities of NASA's JWST, which will define astrophysics for the next 20 or more years.

This large, complex program, with multiple organizations and international partners, required constant and consistent application of both technical and programmatic skills to bring it to a successful launch and overcome numerous and publicly documented technical challenges along the way. JWST is fully deployed and has begun delivering on its science promise. This achievement has made a profound and indelible impact on NASA mission success; therefore, the contributions of those listed are so extraordinary that other forms of recognition by NASA would be inadequate. In a prior ceremony, these distinguished honorees were celebrated.



WEBB
SPACE TELESCOPE

Distinguished Service Medal

John Durning
Lee D. Feinberg
Paul H. Geithner
Michael T. Menzel
William R. Ochs
Mark F. Voyton

Distinguished Public Service Medal

Charles Atkinson
Scott Willoughby


INTERNATIONAL
SPACE STATION
PAYLOAD OPERATIONS CENTER
NASA
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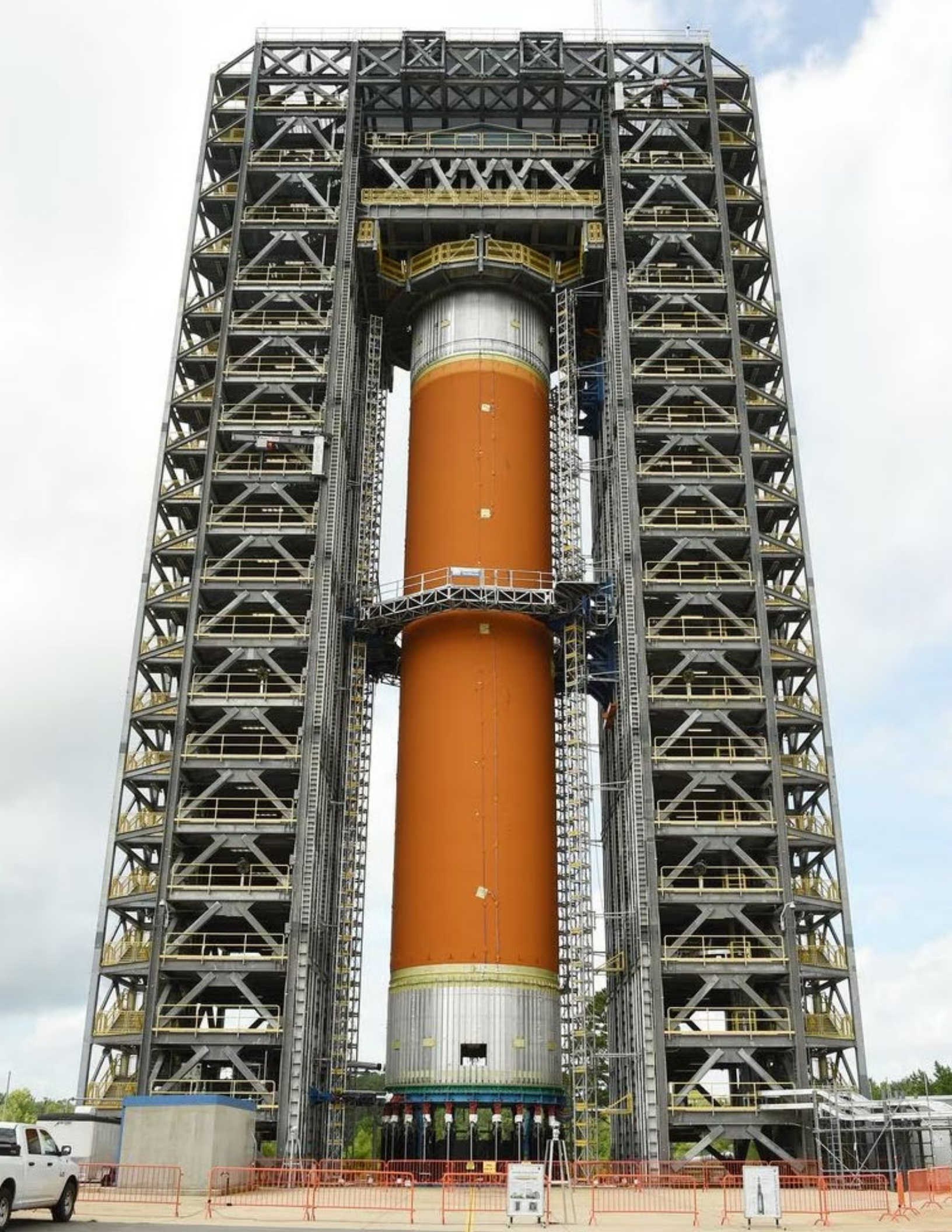


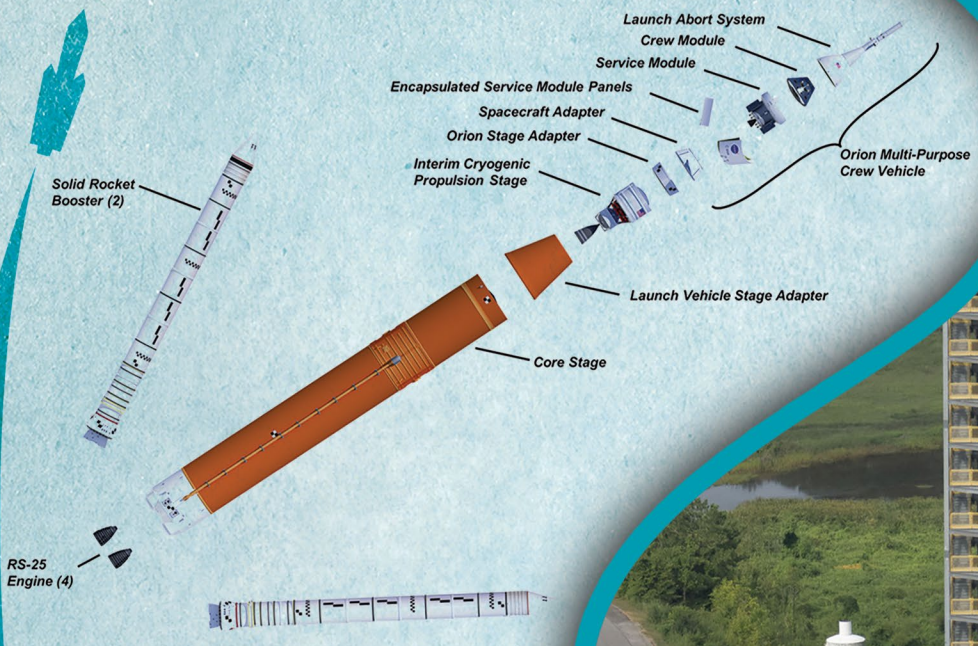
Acknowledgements & Special Thanks

For their support and participation in this event, appreciation is extended to the following individuals and organizations: NASA Administrator Bill Nelson; NASA Deputy Administrator Pam Melroy; Marshall Space Flight Center Director Jody Singer; and Deputy Associate Administrator Casey Swails. Appreciation is also extended to other NASA Center Directors: Dr. Eugene Tu (Ames Research Center); Brad Flick (Armstrong Flight Research Center); David Mitchell (Interim) (Goddard Space Flight Center); Nichole Pinkney (Director Headquarters Operations and Support) (NASA HQ): Laurie Leshin (Jet Propulsion Laboratory); Vanessa Wyche (Johnson Space Center); Janet Petro (Kennedy Space Center); and Clayton Turner (Langley Research Center).

Thanks is also given to the Master of Ceremonies (William Marks), Deputy Director of Marshall Space Flight Center Operations, NASA Office of Communications, NASA Television Production Team, and the Center Television and Photography staff, without whom this event would not have been possible.

Additional thanks to the Human Resources Center Awards community, the Mission Support Enterprise Organization (MSEO), and the Office of the Chief Human Capital Officer (OCHCO) for their support. Thanks is also extended to the NASA Shared Services Center (NSSC) for coordinating and supporting the 2022 Administrator's Agency Honor Awards Ceremony and year-round support of the Agency's Awards and Recognition programs and products.

To the extraordinary honorees, we wish you continued success in all of your endeavors. NASA's greatest asset is its people, who do the extraordinary every day to unfold the universe's secrets and expand humanity's knowledge.



ARTEMIS

Ames Research Center

Armstrong Flight Research Center

Glenn Research Center

Goddard Space Flight Center

Jet Propulsion Laboratory

Johnson Space Center

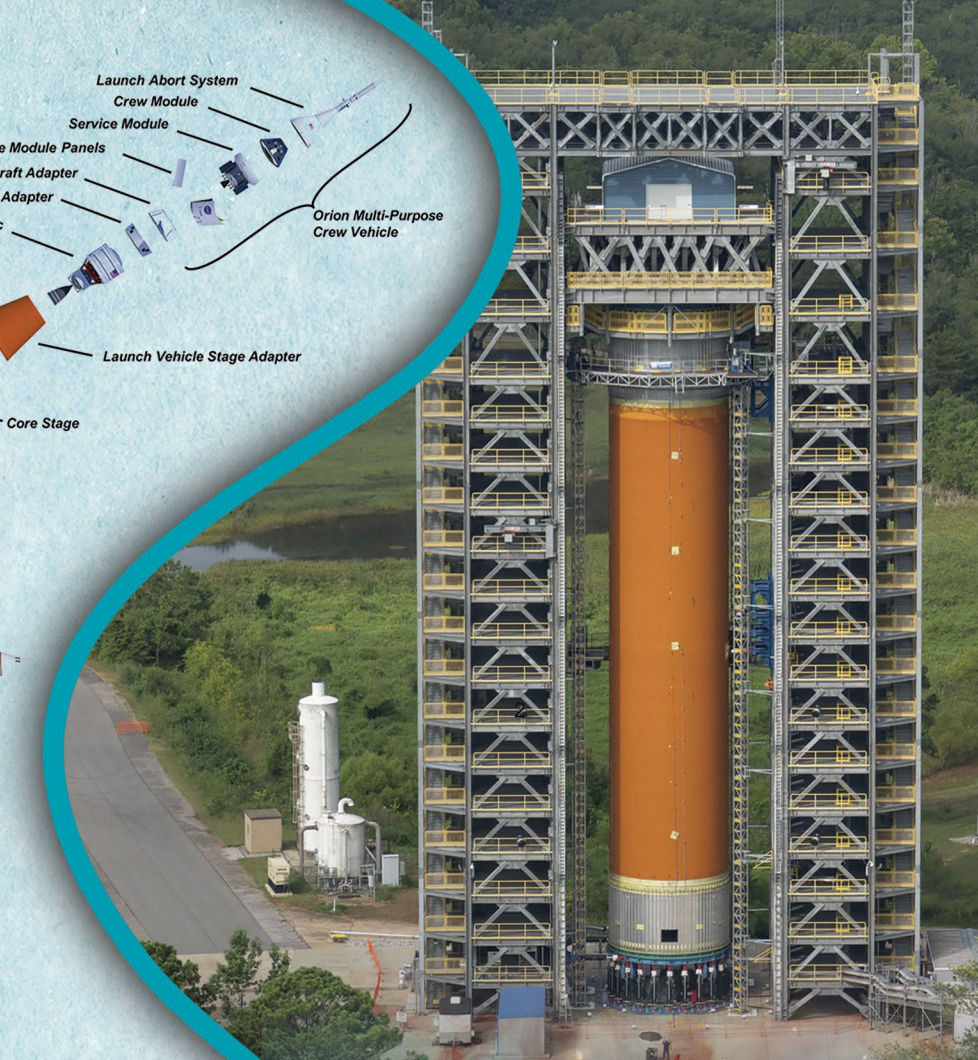
Kennedy Space Center

Langley Research Center

NASA Headquarters / Mission Support Enterprise Organizations

Marshall Space Flight Center

Stennis Space Center



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