



2022

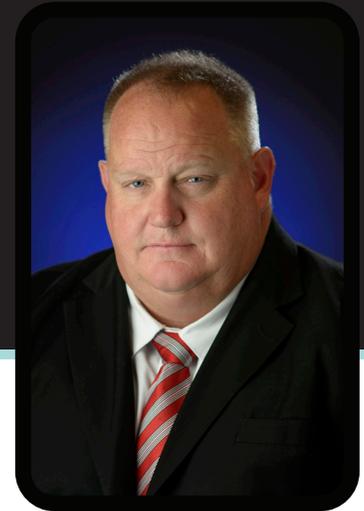
MISSION SUPPORT ANNUAL REPORT

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MESSAGE FROM BOB GIBBS

Associate Administrator, Mission Support Directorate



Dear Friends of the Mission Support Directorate,

I'm thrilled to introduce the 2022 Annual Report for NASA's Mission Support community. It's been an inspiring year, and I'm proud to share how the dedicated Mission Support community lifted the larger NASA community along the way to unprecedented success in 2022.

For example, when the Artemis launch director needed to be informed on all matters of security, the Mission Support Directorate's Office of Protective Services coordinated the development of voice direct loops on the operational inter-communication system. In preparation for the first images from the James Webb Space Telescope, the Office of Communications and the Office of the Chief Information Officer combined efforts across the enterprise to publicize the images in real-time. Ultimately, these images reached millions of people, and garnered a [Google Doodle](#) and broadcasts on the screens in Times Square. Throughout the year, Office of the General Counsel worked tirelessly to resolve a host of novel and complex legal issues related to new commercial crew transport and activities on the International Space Station—tasks that were essential to the program's success.

In the following pages, you will see countless ways the Mission Support community helped to ensure every launch, every discovery, and every innovation had the support it needed to be successful. This committed workforce underpins each one of NASA's triumphs. If you are not familiar with the Mission Support community, you can learn more on page 6 of this report.

NASA is its people, and you'll see that reflected throughout and in our priorities: service delivery, customer experience, and agility and innovation. Each one of these has a section of its own within this report, highlighting major accomplishments from across the Mission Support community in 2022.

The amount of hard work and dedication required to execute NASA's 2022 achievements is hard to grasp. I am humbled and honored to share the Mission Support community's 2022 contributions.

Sincerely,

A handwritten signature in black ink that reads "Bob Gibbs". The signature is written in a cursive, slightly slanted style.

Bob Gibbs
Associate Administrator, Mission Support Directorate

[Robert_Gibbs, Associate Administrator, Mission Support Directorate | NASA](#)

MESSAGE FROM BOB CABANA

Associate Administrator



Colleagues and Friends,

I started my NASA career in the 1980s as an astronaut, and throughout my career, I've witnessed what NASA can do when we are united by a common goal. The people of NASA truly make the impossible, possible. Underpinning all our accomplishments is a Mission Support community dedicated to NASA's success. This report recognizes the work of thousands of NASA staff and contractors who make the mission possible.

One of NASA's strategic priorities is to **advance** the capabilities, workforce, and facilities that enable NASA to achieve our mission. But the Mission Support community also enables NASA's priority to discover. In 2022, for example, the Office of the Chief Information Officer and the Office of the Chief Human Capital Officer sponsored the release of NASA's first Enterprise Data Platform. This tool will make it easier and faster to access data from across the agency, facilitating new discoveries.

The Mission Support community also positions NASA to **explore** and expand the boundaries of our human presence in space. In 2022, the Office of the Chief Health and Medical Officer coordinated with stakeholders and NASA leadership to grow a cadre of health and medical experts who provide unified guidance as we prepare for safe exploration of the Moon and beyond.

In another example that shows how the community seeks to **innovate** by promoting the technologies of tomorrow, the Office of Procurement and the Office of the General Counsel have been working with the Johnson Space Center and the Exploration Systems Development Mission Directorate on the contract award and execution efforts to develop a new generation of space suits.

As I reflect on the past year, I also look forward to all that is to come. Working together, we can accomplish amazing things.

Keep Charging,

A handwritten signature in black ink that reads "Robert D. Cabana". The signature is fluid and cursive, with a large, stylized initial "R".

Bob Cabana
Associate Administrator

[Robert D. Cabana, Associate Administrator | NASA](#)

MESSAGE FROM CASEY SWAILS

Deputy Associate Administrator for Business Operations



Dear NASA Team,

2022 was a monumental year for NASA! The Mission Support Directorate and the entire Mission Support community are not exceptions. At the December 2022 [NASA All Hands](#), Administrator Bill Nelson noted that this year “will go down in the history books as one of the most accomplished years in all of NASA history and missions.”

Every Mission Support accomplishment this year contributed to ensuring successful missions, and every member of the Mission Support community should be proud of their contributions to the collective success. Your work under the Agency’s new Enterprise Service Model successfully supported key, unprecedented and historic missions: ensuring the flawless unfolding and commissioning of the James Webb Space Telescope so it could return its first scientific images, enabling analysis of data from NASA’s Double Asteroid Redirection Test to prove we did move an asteroid, empowering the Artemis team to conduct a nearly flawless uncrewed mission to the Moon, and so much more!

It is truly remarkable to look back and reflect on the great things this community has accomplished together to deliver the technology, infrastructure, operations, and diverse workforce to achieve the NASA mission. As you can see in this report, our community rallied together in 2022 to ensure NASA remains a diverse, inclusive workforce of unmatched talent, in an environment that fosters agility and innovation, working across boundaries to deliver better services to our customers in support of the mission.

NASA leadership sees and appreciates your efforts that make the enterprise model work, such as completing the Mission Support Future Architecture Program (MAP), creating an Agency Master Plan to align NASA’s real property assets to mission requirements, identifying time-saving processes, and fostering collaboration.

As we embark on extraordinary endeavors in 2023 focused around infrastructure, technology and workforce, I encourage everyone in the Mission Support community to reflect on our successes while building on our momentum to improve the way we enable NASA’s success. We will continue to make it easier to deliver our support faster and better so our missions and centers can meet NASA’s vision of exploring the secrets of the universe for the benefit of all.

Thank you for all your contributions in 2022, and I look forward to our success in 2023 and beyond as we finalize the master plan, draft technology roadmaps, and make investments to enable hybrid work.

A handwritten signature in black ink, appearing to read 'Casey Swails'.

Casey Swails
Deputy Associate Administrator for Business Operations

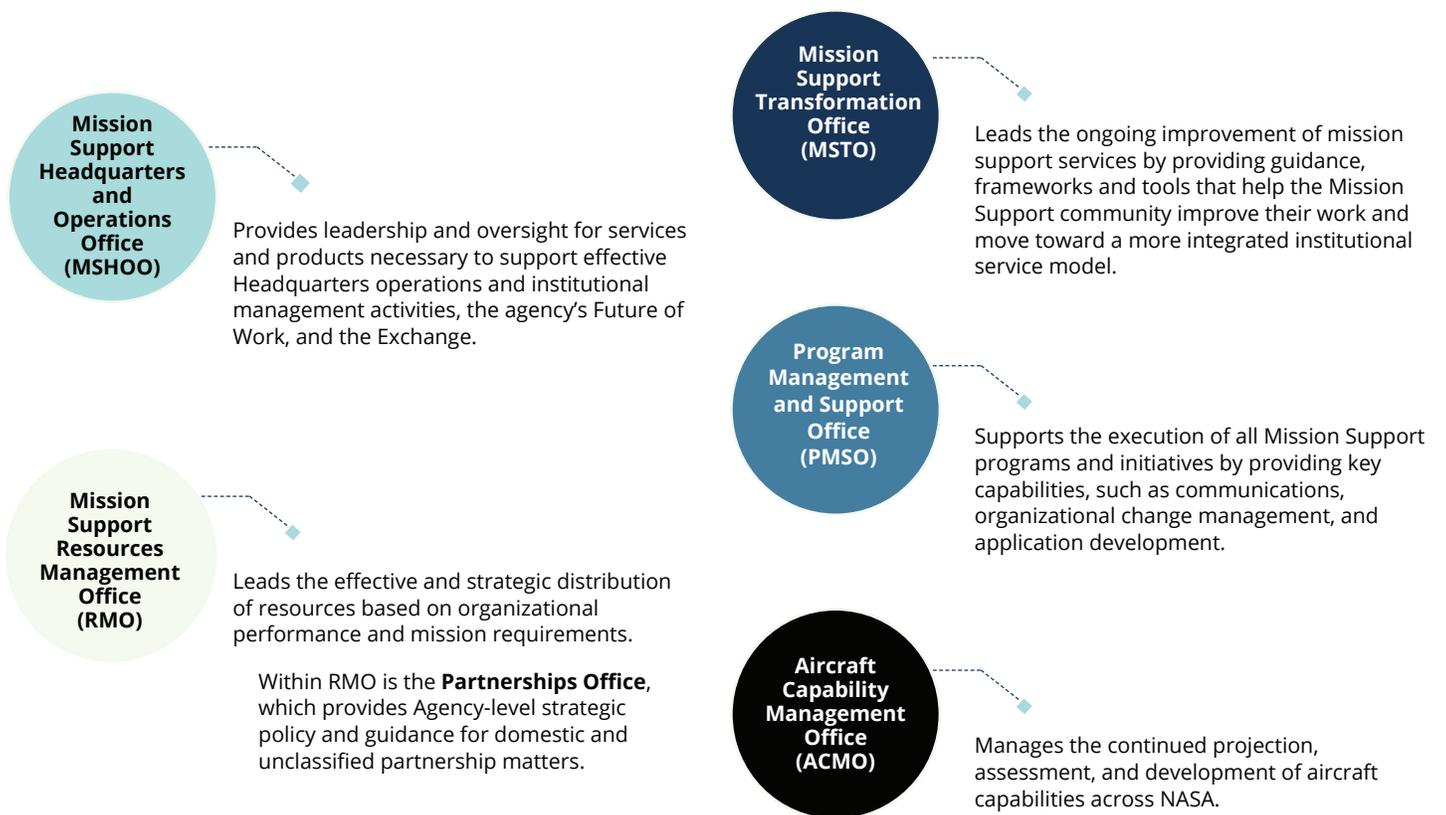
[Deputy Associate Administrator for Business Operations | NASA](#)

“WHO IS THE MISSION SUPPORT COMMUNITY?”

The Mission Support (MS) community is made up of the [Mission Support Directorate \(MSD\)](#), 14 Mission Support Enterprise Offices, three Technical Authorities, and leadership and support teams at 10 NASA centers, all of whom are charged with providing enterprise services across NASA’s missions and centers.

MSD sits at the center of this community, providing solutions and services to ensure NASA’s leadership in aerospace, science, and exploration. MSD specializes in managing strategies to deliver the technical skills, financial resources, physical assets, and top talent to execute NASA missions successfully. MSD also actively reduces institutional risk to NASA’s current and future missions by improving processes, stimulating efficiency, and providing consistency and uniformity in institutional standards and practices across the Mission Support community.

At the core of MSD, five main offices focus on enterprise-enabling capabilities and provide overall direction, alignment, and integration of the mission support enterprise.





WHO IS THE MISSION SUPPORT COMMUNITY?

Within MSD there are also four direct-report offices that deliver the essential services to support all NASA business.

- [Office of the Chief Human Capital Officer \(OCHCO\)](#) – grows, engages, and develops a highly dedicated and diverse workforce with a focus on equity and inclusion.
- [Office of Protective Services \(OPS\)](#) - safeguards NASA's employees, contractors, missions, and facilities.
- [Office of Strategic Infrastructure \(OSI\)](#) – manages assets and capabilities, deploys sustainable practices, and reduces current and future infrastructure-related risks.
- [NASA Shared Services Center \(NSSC\)](#) – provides more than 60 business activities to all NASA centers, Mission Directorates, and Mission Support Enterprise Offices.

Partner offices collaborate with MSD and support NASA by providing the professional expertise and services needed for the NASA enterprise.

- [Office of Communications \(OCOMM\)](#) – provides insight and information about NASA to all audiences within NASA and throughout the world through use of strategic delivery and effective vehicles.
- [Office of the Chief Financial Officer \(OCFO\)](#) – supplies leadership for the planning, analysis, justification, control, and reporting of all Agency fiscal resources.
- [Office of the Chief Information Officer \(OCIO\)](#) – enables the secure use of data and technology to accomplish NASA's Mission.
- [Office of Diversity and Equal Opportunity \(ODEO\)](#) – leads diversity and civil rights policies, programs, and services.
- [Office of the General Counsel \(OGC\)](#) – supplies commercial, contract, general, and international law support.
- [Office of International and Interagency Relations \(OIIR\)](#) – provides leadership for all NASA international and interagency activities and partnerships, and policy interactions with U.S. Executive Branch offices and agencies.

- [Office of Legislative and Intergovernmental Affairs \(OLIA\)](#) – provides leadership in interactions between NASA and the United States Congress as well as state and local governments.
- [Office of Procurement \(OP\)](#) – enables acquisition business solutions to optimize capabilities and operations.
- [Office of Small Business Programs \(OSBP\)](#) – promotes and integrates small businesses into the industrial base of contractors and subcontractors that support the future of space exploration, scientific discovery, and aeronautics research.
- [Office of Science Technology Engineering and Math Engagement \(OSTEM\)](#) - Endeavors to attract, engage, and educate students and to support educators and educational institutions.

NASA's Agency Technical Authorities (ATAs) bring vital, mission-enabling technical expertise to all of NASA.

- [Office of the Chief Engineer \(OCE\)](#) – advises the NASA Administrator and other senior officials on matters pertaining to the technical readiness and execution of NASA programs and projects.
- [Office of the Chief Health and Medical Officer \(OCHMO\)](#) – provides policy and oversight of all health and medical activities at NASA.
- [Office of Safety and Mission Assurance \(OSMA\)](#) – assures the safety and enhances the success of all NASA activities through agencywide safety, reliability, assurance and space environment sustainability.

The leadership and support teams at [NASA centers](#) play a crucial role in the execution of missions.

Center leaders and support teams work with MSD to align center needs with MS priorities. Centers ensure their laboratories, critical capabilities, and associated specialized equipment are mission-ready and meet NASA standards. Each center provides analytical support and conducts research and development projects to guarantee NASA has the technical capabilities and capacity for all missions.

THE PEOPLE OF NASA

The Mission Support Directorate and the Mission Support community approach their work with the mindset of “people first, mission always.”

Offices across the MS community contribute to the culture of NASA, where people are united in the shared higher purpose of discovery that makes an enduring impact on humanity. MSD and the MS community approach their work with the mindset of “people first, mission always.” Ensuring inclusion, accessibility, and equity is how MSD nurtures the diverse team of people that make missions happen – and how we inspire our partners and the next generation of explorers.

Best Place to Work

In 2022 we celebrated a “Decade of Excellence,” being named [the best place to work among large Federal agencies for the tenth year in a row](#) by the Partnerships for Public Service. This is a testament to the care and commitment NASA employees have for each other and the mission.

OCHCO administered the 2022 Federal Employee Viewpoint Survey. As in years past, NASA civil servants report very high levels of engagement and satisfaction. They also rate NASA highly on an index for diversity, equity, inclusion, and accessibility (DEIA), which was measured for the first time on this year’s survey.

AREA	NASA	TOP RATING FOR A LARGE AGENCY ON THE 2022 OPM REPORTS (OPM.GOV)
Overall Engagement	87%	83% (GSA)
Global satisfaction index	81%	78% (GSA)
DEIA index	87%	81% (GSA)

(This year NASA administered the Federal Employee Viewpoint Survey internally, so NASA’s scores were not included in the report from Office of Personnel Management (OPM). The definition of large agency is an agency with 10,000 to 74,999 employees.)

A MESSAGE FROM **MISSION SUPPORT HEADQUARTERS AND OPERATIONS OFFICE**

Hello from the Mission Support Headquarters and Operations Office,

Our office provides executive leadership in the planning, implementation, and evaluation of multiple mission support activities, including Agency and Headquarters Future of Work and the NASA Exchanges. We also serve as the focal point for identification, integration, and resolution of key issues that impact the NASA Headquarters community and support efforts to prioritize and transform the provision of mission support services. Further, we help manage operational risk and work to ensure agility, strategy, and readiness in supporting NASA's complex and evolving missions.



[Nichole Pinkney | NASA](#)

NASA is consistently recognized as a great place for people to work. In 2022, the Mission Support community made a clear commitment to making NASA an even better place to work for an even more diverse and engaged workforce. For example, NASA's new Diversity, Equity, Inclusion, and Accessibility (DEIA) Strategic Plan and first Equity Action Plan stemming from offices across the Mission Support community, describe the vision NASA has for greater diversity and inclusive practices to ensure that we are recruiting and retaining talent and establishing new partnerships. These agencywide roadmaps describe the concrete steps we are taking to lean into the future, recognizing that DEIA is integral to mission success.

The first section of this Annual Report details the accomplishments we made in 2022 in internships and hiring, prioritizing DEIA, outreach and engagement, expanding accessibility, the Future of Work, procurement and contract equity, and DEIA governance and accountability.

NASA is exploring the secrets of the universe for the benefit of all. Exploration is more successful when we look from a wide variety of perspectives, draw on a wide variety of experiences, and ask a wide variety of questions. We must ensure we attract, develop, and retain a diverse workforce full of people who can access all they need to contribute, are equitably treated, and truly feel included in the mission we are achieving together.

I am inspired by the successes we've had in 2022 and look forward to all that we'll do in 2023.

Nichole R. Pinkney
Director, Mission Support Headquarters and Operations Office



At NASA, we fully embrace DEIA as a strategic enabler of our safety and mission assurance.

Our commonalities unite us as a team, and our differences strengthen our capabilities. ... [Focusing on equity and inclusion helps us] to maintain a transcendent focus on our common goals and to reinforce our connections – empowering us to work together as a team to best achieve our missions for the benefit of all human beings.” – Bill Nelson, Administrator, [NASA Policy Statement on Diversity, Equity, Inclusion, and Accessibility for NASA’s Workforce and Workplaces.](#)

2022 EXTERNAL RECOGNITION OF NASA AS AN EMPLOYER

 #1 Government Employers <small>(STEM Workforce Diversity Magazine)</small>	 #1 Best Employers for Veterans <small>(Forbes)</small>	 #3 America’s Best Large Employers <small>(Forbes)</small>	 #4 America’s Best Employers for New Grads <small>(Forbes)</small>
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America’s Best Employers by State ([Forbes](#))

#1 Alabama, #1 Florida, #1 Texas

#4 Maryland

Top Diversity Champion Among US Employers with 10,000 to 30,000 Employees ([LinkedIn](#))



Internships and Hiring

OCHCO built the NASA pipeline and workforce of the future by delivering a thriving Pathways Program with approximately 650 interns in 2022. This was a diverse group: 60% were undergraduates; 75% STEM; about 40% female; and about 40% from minority groups. Among the interns, 94% reported having a positive experience at NASA, and NASA achieved an 86% rate of converting interns to civil servants. OCHCO presented to the President’s Management Council to help other agencies improve their Pathways programs. **Additional accomplishments in internships and hiring included:**

- OGC created a list of law schools with high enrollment of under-represented groups and encouraged hiring officials to send vacancy announcements to these schools and their communities.
- By asking applicants to select the centers where they want to work, OCHCO provided a more refined list of qualified candidates to hiring managers and improved customer experience.
- OCHCO revised and streamlined the NASA Exit Survey to improve participation and data.
- New comprehensive analyses of the Pathways hiring process and talent assessments conducted by OCHCO will become the standard template for the agency’s DEIA analyses, reporting, and dashboards.

Prioritizing DEIA

NASA and the MS community developed more detailed guidance on prioritizing DEIA in 2022 with two milestone deliverables to the White House and the public:

- ODEO launched the new [NASA DEIA Strategic Plan](#) providing an agencywide roadmap for organizational implementation in FYs 2022-2026.
- ODEO, OSBP, and OP supported the Administrator’s suite in launching [NASA’s first Equity Action Plan](#). This was released by the White House on April 15, 2022, to expand opportunities for traditionally underserved, underrepresented, and untapped communities to work with and learn from NASA.

OCOMM delivered a strategic communications plan for the DEIA plan and provided engagement, digital, social, media, and TV support for key activities launching the Equity Action Plan. Additionally, OCOMM updated [NASA Policy Directive 1388.1 Employee Participation in NASA STEM Engagement and Communications Activities](#) that encourages employees to get engaged in their community as an ambassador for the agency to mitigate systemic equity barriers.

Offices in the MS community also worked to prioritize DEIA within their own organizations, including supporting Employee Resources Groups (ERGs).

- In striving to be a model employer for DEIA where all employees are treated with respect and dignity, OGC formed an internal DEIA Team that has developed its first DEIA climate survey to gauge OGC’s strengths and any weaknesses in sustaining an inclusive work environment.
- The Protective Services Chiefs across the agency partnered with ERGs at their centers to foster an inclusive relationship between the ERGs and NASA protective services.
- OSMA had active participation in several ERGs, including supporting the establishment of the new Remote and Virtual Employees and Informal Space Policy Network.
- ODEO provided the ERG Community of Practice with a new website to coordinate and empower collaboration and sharing of information and best practices across the agency.
- ODEO collaborated with all 10 LGBTQIA+ ERGs across NASA to produce a recommendation plan for increasing inclusion for LGBTQIA+ people.



TEAM CONVERSATIONS

OGC held educational DEIA programs for OGC employees throughout 2022.

BLACK HISTORY MONTH PROGRAM

125 years in the Making the Legacy of Plessy v Ferguson.

JUNE

Pride Speaker, Thomas Mew, Discussion on his case-Bostock v. Clayton County.

SEPTEMBER

Hispanic Heritage Month with Maikala Harris and Katya Echazarreta.

OCTOBER

Disability Awareness Panel Discussion with: Deepa Goraya; Elizabeth Hardcastle; Conrad Reynoldson; and Spencer Hill

NOVEMBER

- Partnered with the Goddard Space Flight Center (GSFC) Native American ERG to hold two programs
- McGirt v Oklahoma and Oklahoma v Castro -Huerta and the impact of these cases, presented by Professor Grunsted.
 - Panel Discussion on legal cases affecting Indian Country with Stephan Pevar, Casey Ross, and Arvo Mikkonen.

Outreach and Engagement

Reaching out beyond our organization is vital to NASA's success. Engagement with academia, contractors, international and commercial partners, and the American public invigorates our work and brings momentum to our future success. **Here are some examples of this work in 2022:**

OSBP and OP both supported and participated in the [NASA Equity Stakeholder Town Hall](#) on September 28, 2022 to openly discuss how the agency will continue to support underserved and underrepresented communities. OCOMM provided communications support across multiple platforms for the Town Hall.

OSBP partnered with OSTEM to conduct and support the Historically Black Colleges and Universities/Minority-Serving Institutions Technology Infusion Road Tour Initiative. This gathering is designed to inform presidents/chancellors, administrators, staff, and students about opportunities within NASA, with NASA partners, and with other government agencies. In FY22, OSBP participated in two of these road tours.

OCHCO reached over 6 million on LinkedIn with information about NASA's brand of technical excellence, DEIA, and being an employer of choice; and targeted and reached diverse and underrepresented communities to introduce NASA opportunities.

OLIA participated in or facilitated multiple outreach events throughout the year, including:

- A [series of dialogues](#) with agency leaders and subject matter experts during the 51st Congressional Black Caucus Legislative Conference in Washington, along with an event for approximately 40 high school girls hosted by legislators attending the Conference.
- Participated in the Congressional Hispanic Caucus Institute Tech Summit.
- Briefing with the Women's Congressional Policy Institute and the Women's Bipartisan Caucus Lunch Briefing on Recruiting/Retaining Women in STEM.
- Event for 6th-8th grade students at the Havana Magnet School in Havana, Florida, with US Representative Al Lawson. Astronaut Tracy Caldwell Dyson joined the event via Zoom to talk to the middle schoolers about living in space, the future of exploration, and how they can be a part of it via STEM career paths.

OCOMM took several steps in public affairs to increase prioritization of DEIA:

- For the first-time in the agency's history, OCOMM hired a full-time DEIA-focused Public Affairs Officer whose goals are communicating with underrepresented and underserved audiences and building relationships with new diverse media.
- Developed a new approach to achieve goals related to audiences by hiring public affairs specialists specifically assigned to reach out to media to encourage coverage of NASA activities across the agency, including media that reach underserved/underrepresented audiences.
- To reach a more diverse audience, cultivated new relationships and collaborations with media outlets that haven't routinely covered NASA, such as MoonBug Entertainment, FoodBeast, Construction Executive Magazine, Black Wall Street Times, and Girl's Life Magazine.

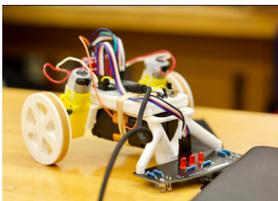
SPOTLIGHT

OCOMM Partners to Creatively Engage the Public

- In partnership with the mission directorates and the Marshall Space Flight Center's (MSFC) Fabrication shop, OCOMM developed a 360-degree, interactive Artemis exhibit for nationwide events that includes excerpts from NASA's [First Woman](#) graphic novel and underscores the agency's plans to land the first woman and first person of color on the Moon.
- A documentary, [The Color of Space](#), featuring a conversation between seven current and former Black astronauts, was created by OCOMM with partners including the Johnson Space Center (JSC), Space Center Houston, National Geographic, Disney, and Hulu.
- With Google Arts & Culture and NASA's LGBTQ+ Pride Alliance, OCOMM created a [showcase of the contributions of NASA's LGBTQ+ employees](#) and how their work advances the agency's priorities.

RAD WORLD CHAMPIONSHIP!

Through funding from the West Virginia Space Grant Consortium, the Katherine Johnson Independent Verification and Validation (IV&V) Facility's Education Resource Center (ERC), part of the Office of Safety and Mission Assurance (OSMA), supported students in foster and kinship care in the First Star Academy and students from the West Virginia Deaf Services Center (DSC). The ERC team trained and worked with these students by providing them access to drones, supporting robotics camp participation, and enabling their registration in the Robotics Education & Competition Foundation Aerial Drones (RAD) Signature Event. Based on their performance at the signature event, the WV DSC team qualified for the RAD World Championship.



Expanding Accessibility

Barriers to participation in NASA's purpose of discovery limit our reach. These barriers can be physical, linguistic, or attitudinal. By removing them, we expand accessibility to facilities, technology, and knowledge.

SPANISH LANGUAGE

OCOMM expanded NASA's Spanish-language communications, including developing for the first time a comprehensive strategic communications plan. As part of the Equity Action Plan, NASA is committed to growing its Spanish-language communications team and translation capabilities.

INCLUSIVE DESIGN

OSI facilitated bringing to NASA accessibility expert Sinéad Burke, well-known for her TED Talk [Why design should include everyone](#). Ms. Burke met with several teams and held engagement events across NASA.

GENDER-NEUTRAL RESTROOMS

OSI analyzed possibilities across NASA facilities for gender-neutral restrooms, which are an important part of providing adequate facility access to employees, contractors, interns and visitors, including non-binary, transgender, and transitioning people and disabled people traveling with support staff.

IMAGE ACCESSIBILITY

OCOMM hosted a [Twitter Spaces](#) with science experts who discussed how space imagery is an experience people can read, touch, and hear via alternative text, rich image descriptions, tactile panels, 3D printed models, tactile plates, and sonifications. Partners for this event included James Webb Space Telescope digital team, Science Mission Directorate, NASA's Chandra X-ray Observatory, the Harvard-Smithsonian Center for Astrophysics, The Space Telescope Science Institute, and System Sounds.

508/IT ACCESSIBILITY

OCIO hired a 508/IT Accessibility Lead to ensure information and communication technology is accessible to employees and members of the public, not only to comply with [Section 508 of the Rehabilitation Act](#) but to provide better services and remove barriers to inclusion. OCIO also partnered with ODEO to educate civil servants and contractors about their responsibilities with Section 508.



Future of Work (FoW)

NASA's FoW effort, which considers new ways the agency can use its physical space, leverage digital and virtual capabilities, and adapt the workforce to evolving mission needs, continued in 2022. The focus shifted to working with teams across NASA to take the vision of a flexible workplace from concept to an ongoing, sustainable reality.

FoW completed the experimental period this calendar year, leading major transitions for the agency. In May 2022, the agency transitioned the workforce, bringing 18,000 civil servants from their COVID-19 pandemic work postures into their *new normal* work postures.

- MSHOO and the FoW team have been working closely with OSI to develop a strategy for agency improvements to space utilization practices for implementation through the Agency Master Plan. This work has been aligned with the agency plan for DEIA, with flexible work postures an important support for employees, including those with disabilities.
- In support of FoW, NSSC established its vision of operating in a hybrid environment and maximizing telework by building upon successes of the NSSC's pre-pandemic hoteling program pilot.
- OSMA adapted NASA Center Safety spaces at the Ohio Aerospace Institute to accommodate a hybrid workforce; this served as the model for Glenn Research Center (GRC) and OSMA for the hybrid work experiment in 2022.
- OCHCO developed a new tool for managing remote work and telework agreements, which will streamline and automate the management of remote work agreements for all NASA employees.
- Given the increasing number of people not working on-site, OPS established working groups with members from OCIO, OCHCO, and Security to develop new onboarding and offboarding processes.
- OCIO delivered the Modern and Inclusive Collaboration Spaces project to jumpstart hybrid meeting proficiency, including a 10-video training curriculum released on SATERN. OCIO also co-sponsored "Innovation Labs" at every center to seed future hybrid tech exploration.
- For 2022, MSHOO's Directives Team digitized more than 2,000 historical and current paper records for directives (i.e., policies and procedural requirements) and regulations (i.e., rules), as well as their corresponding assessments, initiatives, and reviews.
- MSHOO created an expanded Headquarters Future of Work Task Force with stakeholder representation from all organizations within the building. MSHOO also drafted an approved concept of the operation to modify NASA Headquarters for current work postures and a hybrid Future of Work.
- FoW led supervisor sessions to educate the agency's leaders on the policy and practice approaches to make hybrid work successful. These sessions have attracted more than 900 leaders.
- FoW engaged the workforce through town halls, leadership panels, lunch and learns, and meetings with center employees, ERGs, and labor unions.



Procurement and Contract Equity

OP and OSBP worked to ensure underserved communities have a fair opportunity to compete for NASA contracts at both the prime and subcontractor levels. In July 2022, OP established an Equity Capability Group to strategize actions to advance equity in procurement, with OSBP, NASA centers, and OGC. As of July 2022, NASA has obligated approximately \$807 million under the Product Service Lines toward the forecasted \$2.3 billion to small businesses, Ability One contractors.

Here are some other examples of the MS community's work around contracting and procurement equity:

- OP connected more than 220 industry stakeholders and businesses with federal procurement experts and other leaders during NASA's first [LGBTQ+ Vendor Equity Forum](#). The Administrator's Office, OSBP, Science Mission Directorate, and OSTEM also supported the forum, while NASA officials in charge, the Small Business Administration (SBA), and LGBTQ+ Chamber of Commerce Senior Officials participated.
- OP established a series of policy changes to advance equity in procurement:
 - Established a pilot to include DEIA language in solicitations. Established DEIA language to include in Requests for Information to enhance market research and find members of underserved communities.
 - Established a requirement for contractors to submit a DEIA plan one year after contract award.
 - Updated existing PIC 18-01 policy to include a Small Business Specialist early in the contracting process.
- OP's Grant Policy and Compliance group implemented a new term and condition that requires recipients of NASA's financial assistance awards to obtain quotes from small and/or minority businesses, women's business enterprises, or labor surplus area firms (above a certain acquisition threshold), or to document why it can't be done.
- In FY22, the number of outreach events that OSBP Small Business Specialists hosted/participated in increased by 79%, which exceeded the 50% goal in the NASA Equity Action Plan.
- OSBP assisted NASA's implementation of the Office of Management and Budget Memorandum M-22-03, Advancing Equity in Federal Procurement, with the following actions:
 - Negotiated with the SBA on the 8.2% small disadvantaged business (SDB) contracting goal for FY22 which will allow the federal government to cumulatively award at least 11% of federal contract dollars to SDBs.
 - Worked with OP to review and adjust category management stewardship practices to boost contracting opportunities for SDBs and other socioeconomic small businesses.
 - Worked with OP to increase the number of new entrants to the Federal marketplace and reverse the general decline in the small business supplier base.
 - Worked with OCHCO and OGC to include the achievement of small business contracting goals as part of the performance plans of key Senior Executive Service officials.



DEIA Governance and Accountability

A new NASA DEIA governance structure was introduced in 2022 to empower commitment and engagement by senior leaders and employees across the agency. From the Administrator's suite to Employee Resources Groups, the entire workforce can make a difference.

OSBP participated in the NASA DEIA Steering Committee to discuss equity initiatives to expand opportunities for Americans in underrepresented communities and to ensure that equity is ingrained in NASA's decision-making processes.

ACCOMPLISHMENTS BY ODEO IN GOVERNANCE AND ACCOUNTABILITY INCLUDE:

- New DEIA Strategic Management and Performance Assessment Framework that requires all major NASA organizations to submit implementation plans using program management methods that invite broad center-level participation.
- New DEIA performance requirements for all managers and supervisors.
- A revised Agency Honor Award for DEIA.
- Timely submission of NASA's Equity Action Plan to the White House.
- Achieved requirements of Executive Orders 13985, 13988, 14020, and 14035
 - Developed NASA DEIA Strategic Plan and NASA Gender Equity and Equality Plan
 - Provided key expertise and support to develop NASA's Racial Equity Action Plan
 - Submitted best practices to the White House on Preventing and Combating Discrimination on the Basis of Gender Identity or Sexual Orientation
 - Developed a new NASA Gender Identity and Transition Guide
 - Developed new NASA Anti-Harassment Procedures (NPR 3713.3A).
- Submitted all annual DEIA reports required by Congress, OPM, and EEOC.
- Improved efficiency of the Equal Employment Opportunity complaint process ensuring that employees' claims of discrimination were addressed in a timely manner.
- NASA's Anti-Harassment (AH) program, Alternative Dispute Resolution program, and External Civil Rights program achieved AH operations with all actions fully compliant with NPR 3713.3 and average issuance of decisions by 48 days. AH also completed two Title IX compliance reviews, as required by statute.

SERVICE DELIVERY

Supporting missions by delivering services that provide what NASA needs to keep running every day.

These services include programs for health, safety, and security; maintaining and modernizing assets including physical and IT infrastructures; securely sharing and utilizing information with stakeholders; and recruiting, nurturing, and developing the people of NASA.

Each year, NASA plans and executes missions to further our exploration into the world and beyond. The MS community provides essential services to help NASA centers and directorates prioritize their mission-critical tasks. Dedicated teams focus on recruiting, nurturing, and developing the people of NASA to broaden our expertise and expand our potential. Our talented workforce carefully plans health, safety, and security programs to manage assets and Information Technology infrastructures so that NASA can share information with our stakeholders and the world.

In 2022, MSD and the entire MS community worked together to deliver collaborative services in support of NASA's missions. We looked for ways to remove unnecessary steps, find cost-saving opportunities, and reduce service delivery time. We utilized feedback from our customers and found innovative ways to make our products and services even better.



A MESSAGE FROM **MISSION SUPPORT TRANSFORMATION OFFICE**

Greetings from the Mission Support Transformation Office,



[Jamie M. Krauk | NASA](#)

The Mission Support Transformation Office is thrilled to lead the charge in revolutionizing the way we support NASA with integrated Mission Support services. In 2022, the Mission Support community made incredible strides in delivering unparalleled services to NASA's missions and centers.

MSTO is honored to work with the greater MS community. The following section of this report is a testament to the incredible dedication and hard work of the community to refine and mature our operating model for delivering services in support of NASA's missions: eliminating unnecessary steps and finding cost-avoidance opportunities, improving our products and services to be more responsive to our customers, and receiving recognition for our quality of service and support delivery.

As we move into 2023, I am eager to see the continued collaboration and progress towards our vision of being the ultimate source of seamless and innovative support capabilities in aerospace, science, and exploration. By building out and improving our Mission Support capabilities, we empower the hard-working teams at our NASA centers and missions to focus on achieving the impossible. My personal goal is that we will continue to streamline, reduce undue customer burden, and continue to transform as similarly as possible, pushing us to new heights of success.

Let's continue to make history together,

Jamie M. Krauk
Deputy Associate Administrator for Mission Support Transformation

Mission Support Enterprise Work

A significant step in the maturation of MSD this year was the enterprise-wide focus on risk during the annual Planning, Programming, and Budgeting Execution (PPBE) process. MSD established a clear set of decision criteria to drive trade space decisions and priority-setting as a first step toward an enterprise operating model. PPBE '24 demonstrated the decision criteria and generated dialogue to ensure early insight into risks and their impacts for risk prioritization.

The MS community also matured as MSEOs worked together to enable enterprise-wide solutions. Together they implemented new tools to provide streamlined approaches to everyday tasks, guidance on repeatable processes, and simplified access to enterprise data.

- OCIO launched the Enterprise Book a Space Hoteling Reservation Tool, allowing NASA employees to easily reserve shared workspaces, such as desks, cubicles, and offices.
- A joint team (OCOMM, OCIO, and OSI) developed the NASA Library community's Agency Library Portal System (ALPS). ALPS will provide agency-wide access to NASA library assets. It will recast how the agency handles subscriptions to journals and magazines for technical research.
- OGC expanded its use of enterprise IT platforms—Legal Files and Lawnet—to manage workflow, improve knowledge management, create a document repository accessible to all legal offices, track litigation, and manage electronic subscriptions.
- OP created the Electronic Product Service Line Guidebook as a resource for NASA's acquisition and procurement workforce. The guidebook clarifies roles and responsibilities, information and resources for the Procurement Lifecycle, and enterprise procurement strategies for institutional-related goods and services.
- MSTO and OCIO defined key Technology Focus Areas as expectations and standards for all MSEOs. This effort aims to increase data access and interoperability, reduce duplication and extraneous software, and increase automation.
- OPS implemented a computer-aided dispatch system at several NASA facilities to increase the standardization of processes across the enterprise.
- OCHCO, OCIO, and NSSC built an integrated working team to leverage ServiceNow across OCHCO and enable fully integrated services between the NSSC and OCHCO.
- ACMO drafted MSD's Aircraft Capability Portfolio Management Plan to clearly articulate the process and implementation of each NASA Aircraft Capability Portfolio Commitment Agreement for each Directorate.
- OPS used a new regionalized approach by providing simultaneous guidance to four Requirement Development Teams. This strategy reduces the duplication of efforts, ensures consistency, and facilitates cross-agency enterprise support.
- OSI's Facilities and Real Estate Division (FRED) began procurement of an enterprise-level, computerized maintenance and enterprise asset management software system to advance the agency maintenance program.
- RMO's Partnerships office, OGC, OIIR, and OCFO helped lead the transition to the Treasury's Federal-wide "G-Invoicing" system to ensure that NASA's interagency agreements continue to be implemented in an agile manner to meet agency objectives.
- MSHOO planned, prepared, and conducted an agency-wide, three-day Exchange Summit. This event served as a critical forum for Exchange managers to share best practices; techniques, tactics, and procedures; and methods for overcoming pandemic-induced challenges for the program and its personnel.
- OP established the Enterprise Pricing Office. This organization will manage a sustainable architecture promoting an environment of pricing innovation, pragmatic pricing solutions, prompt and realistic negotiations, and the best possible fair and reasonable prices across NASA's Enterprise.
- The NSSC made a critical award for agency Microsoft buys – the highest dollar value action in the team's history, valued at \$114 million.



The [Doorway Into Procurement](#), an intranet site OCIO created to support OP, provides additional enterprise resources.

NASA Internal Access Only

Continued on next page

Mission Support Enterprise Work

Each MSEO developed a revised portfolio of quantitative performance measures, decreasing the number of MS enterprise-level performance measures by 64%. Efforts are now more focused on quantitative service delivery outcomes, allowing improved performance tracking for internal managers and improved customer visibility.

Additionally:

- MSTO partnered with the Office of the Executive Secretariat and stakeholders from centers, MSEO, and Mission Directorate stakeholders to enhance and streamline enterprise-level performance reporting for MS. The scope of MS reporting was clarified for NASA's Baseline Performance Review and the Mission Support Program Management Council (MSPMC) and MSEOs developed a revised portfolio of quantitative measures of service delivery. These measures were reported alongside risk, workforce, and resource information to provide a holistic view of organizational health at the new MSPMC Performance Review.
- MSTO implemented a consolidated MSD-level Customer Satisfaction Survey in December of 2022. This semi-annual satisfaction survey will gather feedback from NASA civil servants on services provided by each MSEO as we strive for continuous improvement.
- OCIO launched the Smart Projects and Reviews with Transformative Analytics (SPARTA) pilot. SPARTA's goals are to enable multi-center integration and streamline project review processes using real-time data. SPARTA provides intuitive graphical dashboards across NASA centers to enable faster project management decisions with better, earlier insights. Currently, SPARTA is using a pilot portfolio of science projects to finalize its prototype interactive project management dashboards featuring integrated views of mission profiles, risk, financial, and schedule data.

SPOTLIGHT

MSD and OSI Lead the Effort to Create an Agency Master Plan

A key accomplishment this year is the creation of the Agency Master Plan (AMP), an effort led by OSI in partnership with stakeholders across the agency. The AMP aligns NASA's property assets to mission requirements. It identifies properties NASA should sustain, invest, repurpose, or divest to meet the needs of the Artemis generation and beyond.

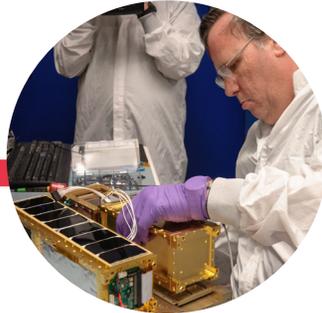
During this planning cycle, MSD also engaged with the master planning community to document how we gather data for more than 5,500 assets to safeguard the success of NASA's missions, programs, and partners. We identified ways for the centers to implement strategies to maximize the use of our existing facilities and infrastructure while minimizing impacts on our protected environment.

The Asset Inventory Assessment (AIA) process feeds critical data to make business decisions into the AMP. This year, MSTO and OSI worked to transform the four-step AIA process to be repeatable. With more emphasis on human-centered design, 14% of waste, or 15 days, will be eliminated from the process.



Improve Service Delivery Time

It goes without saying that the faster we provide the resources, direction, and tools NASA's missions and centers need, the quicker they can execute successfully.



► Offices across the MS community did just that in 2022, such as:

- MSTO partnered with OCHCO to shorten and optimize the hiring process. MSD led two studies that produced findings and actionable recommendations to improve the referral of candidates, change the customer service model, streamline pay negotiations, and enhance communications. **As a result of the advice, OCHCO and NSSC successfully:**
 - Decreased the time to hire from 104 days to 85 days, while hiring for 60% more positions, to enable success for every NASA organization.
 - Began advertising the most-commonly-recruited positions agency-wide, improving the applicant experience, eliminating duplicative work from posting individual announcements and allowing centers to make multiple selections quickly for the life of the certificate.
 - Introduced a new agile solution for hiring managers to make selections from existing certificates helping to get the skills on the job faster. In 2022, over 50% of all candidates in FY22 came from existing certificates.
- In support of the Agency's focus on workforce development, MSD and OCHCO launched the planning efforts for its mid-career and aspiring executives' programs. OCHCO also Launched a new Strategic Executive Resources Board to bring greater transparency to NASA's executive positions across the agency.
- OLIA reduced the number of overdue Congressional reports from 50% to approximately 15% overdue and increased their correspondence response time from an average of 45 days to 19.
- OCHMO reduced the time to update technical standards from five years to one year. As a result, Human Spacecraft Developers have access to the most updated and comprehensive technical standards to ensure safe and successful human exploration missions.
- OCHMO and the NASA Institutional Review Board implemented new streamlined processes to decrease turnaround times on all human subject research proposals, ensuring quick, consistent, and ethical implementation across all NASA centers.
- OP must publish semi-annual updates of expected contract opportunities for each fiscal year and make this forecast available to the public. This year OP's consolidated approach reduced the processing time for each publication of the acquisition forecast from three months to one month.

Less Waste/Lower Cost

NASA demonstrates that we are good stewards of our resources and, ultimately, our taxpayer dollars by looking for ways to reduce unnecessary steps and use fewer resources. **Here are some examples of Mission Support offices producing less waste or providing cost savings in 2022:**

- MSD, ARMD, and STMD partnered with OCIO to fund the Smart Centers initiative to solve the multi-billion-dollar maintenance backlog. Additionally, this initiative provides a lower-cost on-planet testing ground for future activities off-planet. Results from the initial pilot will inform the FY25 Program Resource Guidance and joint planning guidance for future agency scalability.
- OCOMM, MSD, OCFO, and OCIO conducted a deep dive into the communications budget. They made strategic reductions to enable the design of a NASA streaming platform, investments to mitigate equipment obsolescence, and strategic hires to reach underserved audiences.
- The NSSC reduced the total number of agency-wide Government Purchase Cardholders by almost 50% by working with the centers to close inactive and dormant accounts.
- OCHCO consolidated several of the training purchases for the agency resulting in a bulk purchase cost avoidance of \$2.2 million and an estimated cost savings through a consolidated purchase model of \$170,000.
- OCIO and the NASA Enterprise Automation Services office implemented intelligent automation of manual processes resulting in a savings of approximately 12,956 labor hours, or 6.2 full time employees.
- OCHMO saved the agency more than \$3 million by purchasing an off-the-shelf application for White House-mandated COVID-19 vaccine self-reporting, attestation, and verification.
- OSMA has migrated most of its Fairmont operations into the Katherine Johnson Independent Verification and Validation (IV&V) Facility, which will save \$600,000 per year that can be applied directly to IV&V technical work. IV&V also reduced contractor space in non-Fairmont locations, saving another \$600,000 per year.
- During the PPBE24 process, NSSC planned a reduction in square footage for FY24 and the out-years that would decrease overall occupancy costs by approximately \$1 million per year.
- ACOM and OSI's Logistics Management Division developed and implemented a myriad of aircraft and aviation disposition plans resulting in the reduction of outstanding deferred aircraft logistics costs and the disposal of an estimated \$55 million in unnecessary property inventory.
- NSSC and OSTEM combined 13 separate cooperative agreements into a single award indefinite delivery/indefinite quantity contract valued at \$290 million.

SPOTLIGHT

NASA PROVIDES A COST-SAVINGS BENEFIT TO THE REST OF THE FEDERAL GOVERNMENT

The Langley Research Center, in collaboration with OGC and OCIO, developed a compliance tool for purchase card holders to ensure agency compliance with [Section 889](#). The 889 Compliance Tool was so innovative that OP offered it to the GSA for possible deployment Federal-wide, and GSA agreed. While this tool has direct benefits for card holders, areas across the Federal government can also utilize the 889 Compliance Tool's functionality, with limitless possibilities and resource and cost savings.

Doing it Better

Money and time benefits aside, NASA's MS community looked for ways to simply improve how we do things. Whether the goal was to be more accurate, have a more significant impact, provide a better service, or simplify steps, here are examples of continuous improvement:

- OCIO's Enterprise Email Architecture Team redesigned the NASA legacy email architecture to mitigate vulnerability findings. Moving from a structure of multiple individual and center environments to one enterprise Microsoft Office 365/Defender account, OCIO secured, simplified, and improved the NASA email environment.
- OGC and the Partnerships Office created policy guidance, training materials and templates to standardize the competition of opportunities to partner with NASA through Space Act agreements.
- OGC and OIIR created step-by-step guidance, checklists, and form letters to improve how NASA researchers collaborate with external partners in support of solicitations issued by other Federal agencies.
- OGC created a new data usage agreement template that enhances access to NASA data for commercial partners and ensures NASA benefits from users' improvements.
- OLIA adjusted its legislative proposal process, pushing it up four months to increase the agency's ability to effectively influence NASA priorities in U.S. legislation.
- The OPS Intelligence Division standardized Special Security Office functions, including audits, reaccreditations, planning, management, and oversight of all NASA Sensitive Compartmented Information Facilities.
- NSSC worked closely with U.S. Bank to select a more accurate tool to aid in the foreign currency conversion process providing travelers with accurate expense amount conversions.
- OP implemented a Standardized NASA Notice of Funding Opportunity Template. The template ensures all NASA funding forms are consistent and compliant with federal regulations and present one voice in our public-facing grant documents.
- NSSC, OPS, OCIO, and OCHCO worked together to develop a ServiceNow service catalog request that allows mentors to schedule up to 10 interns in a single session to complete the onboarding process without having to make unnecessary calls to the Enterprise Service Desk (ESD).
- MS leadership teams at NASA centers executed leadership's priorities and business innovations through process improvements and technologies including investment in the setup of a local configuration management capability.
- RMO improved the budget formulation process by integrating work products, including tools and techniques, that allowed for more efficient delivery of the MS budgets and more informed decision-making. RMO continued to build upon prior years' budgeting activities to establish a budget cadence where all organizations worked better together and understood expectations throughout the budget process. **These efforts resulted in:**
 - An improved budget execution process
 - Enhanced monthly reporting to allow for better assessment
 - Streamlined funds distribution for quicker release of funds
 - More detailed and timely program analysis for NASA Headquarters offices
 - Improved financial decision-making and more robust plans as a result of the development, implementation, and utilization of the MS Resource Planning Tool Phasing plan module
 - In-house cost transparency assessments for small enterprises
 - Improved quality and quantity of special assessments for better decision making
 - Critical conversations with all MS organizations to understand risks and impacts on NASA's mission

Ranks and Recognition

The MS community uses feedback to provide insight into what we are doing well and how we can continue to improve our services. In 2022, survey results, positive feedback, and formal recognition included these highlights.

- NSSC customers provided the following satisfaction ratings in FY22:
 - Customer Contact Center received 4.76 out of 5
 - Agency IT support via ESD received 4.82 out of 5.0
 - Functional Service Areas received 4.6 out of 5.0 overall (3.9 for Financial Management, 4.6 for Human Resources, and 4.5 for Procurement)
- OGC received very positive feedback in the 2022 annual OGC Client Feedback survey. Of the responses received, 70% of responders rated legal services as excellent, and 20% rated them as very good.
- OSBP and the agency received a 106.23% "A" on the Small Business Procurement Scorecard.
- OSBP continues to manage the Agency Small Business Awards program, which recognizes outstanding efforts in developing and implementing innovative practices supporting the agency's small business program. It also acknowledges civil servant contributions made throughout the agency.
- NSSC received a commendation from the Hi-Rate Composite Aircraft Manufacturing Project, part of the NASA Aeronautics Research Mission Directorate, Advanced Air Vehicles Program, for dedication and continued support.
- In the most recent annual survey, 100% of all responses indicated a favorable ("Agree" or "Strongly Agree") perception of the OSMA support provided by the IV&V programs, projects, and Support Office.
- OCIO's Goddard's Mission Cloud Platform Team, a Cloud Computing Service Managed Cloud Environment customer, was selected for two Agency Group Achievement Awards recognizing their outstanding achievements in developing, securing, and implementing the new Mission Cloud Platform, a critical component of NASA's mission technology transformation. The platform hosts more than 100 NASA science and mission projects and enables higher data rates via the cloud over traditional on-premises infrastructure.
- NSSC and OCFO managed NSSC responses to all audits, including the critically important Financial Statement Audit, which concluded with the 12th unmodified/clean opinion in a row.
- OCIO improved NASA's ability to manage cybersecurity risk to systems, assets, data, and capabilities in FY22 and received an overall score of 80% and an improved "Level 3: Consistently Implemented" rating for the annual Federal Information Security Modernization Act review.
- With OP's enhancements to the Acquisition Forecast, NASA's rating on the annual Program Support Center Federal Business Forecast Scorecard improved from Fair to Good. 62 agencies were scored, and NASA was one of only 17 agencies to receive the highest possible rating of Good.
- At the 2022 Energy Exchange, seven NASA employees and teams were awarded and honored by the Department of Energy's Federal Energy Management Program.



CUSTOMER EXPERIENCE

Success requires the Mission Support community to prioritize the experience

of its customers, whether internal to NASA, external stakeholders, or the next generation of explorers and scientists.

Through ongoing and intentional engagement with customers, the MS community can deliver knowledge, absorb feedback, and use data to prioritize work based on the benefits to the customer experience.

In 2022, the MS community employed this customer-centric approach with great success. That approach manifested in the community's achievements as an emphasis on communication.



A MESSAGE FROM PROGRAM MANAGEMENT AND SUPPORT OFFICE



[Robert J. Hubbard | NASA](#)

Hello from the Program Management and Support Office,

Our office facilitates the execution of the MSD's programs and initiatives by providing key support services and expertise to the MSD Core and Mission Support community, such as organizational change management, communications, resource strategy and more. We want to help pave the way for NASA to be **the** source of integrated and innovative support capabilities in aerospace, science, technology, and exploration. These are certainly extraordinary targets, but we're up for the challenge.

Customer experience is foundational for meeting that challenge. MSD and the Mission Support community work to anticipate and exceed the needs of our customers—NASA employees and contractors, private and public partners – so that the missions and centers are understood and supported.

Through ongoing and intentional communications and engagement, we deliver knowledge, absorb feedback, and use data to inform actions aimed at improving services. In 2022, the MS community communicated better with our customers, leveraged engagements and partnerships to get better results, and made our services easier to access and navigate.

The following section of this 2022 Annual Report presents an impressive compilation of accomplishments demonstrating the MS community's dedication to the experience of our customers.

I'm proud of this work and I look forward to tackling the challenges ahead.

Thank you,

Robert Hubbard
Director of the Program Management and Support Office

Communication at the Forefront

The MS community embraced quality communication as a means of improving customer experience in a multitude of ways. In some cases, we adapted the amount or type of communication. In others, we used data to guide action.

Here are some of the top accomplishments:

- OLIA prepared witnesses and drafted testimony for seven hearings involving the topics of Artemis, climate science, the James Webb Space Telescope, and Landsat.
- An agency-wide training needs assessment reflected a desire for education on grants, so together with OCFO and NSSC, OP's Grants Policy and Compliance team released a virtual course that gives an overview of grant regulations: "Introduction to 2 CFR: Uniform Guidance."
- NSSC reached thousands of employees through 26 virtual events including "Ask the NSSC," Q&A sessions that focused on time and attendance training, personnel action requests, and retirement and benefits.
- MSHOO coordinated with NASA centers, MSD and MSEOs to gather employee feedback about the Future of Work initiative through three surveys with an average response rate of 59%.
- OCIO designated Business Relationship Managers and Customer Relationship Managers to provide helpful, consistent experiences for customers working with the office.
- After evaluating the results from its customer experience survey program, NSSC enhanced its webpage and developed additional reporting and dashboard capabilities to view survey results.
- OCOMM developed an approach to baseline the level of services provided with existing resources and in alignment with agency strategy, as a starting point for comparisons.
- RMO's Partnership Office updated and expanded its public outreach through the [NASA Partnerships website](#), a brochure, conferences, and public forums. As a result, website pageviews increased by almost 25% and the number of first-time non-Federal partners increased by 110.

SPOTLIGHT

OPS INFORMS ARTEMIS LAUNCH DIRECTOR

OPS is the focal point for policy formulation, oversight, coordination, and management of agency protective services, fire and security services, counterintelligence, counterterrorism, emergency management planning, and continuity of operations functions.

At the request of the Artemis Launch Director, Charlie Blackwell-Thompson, OPS coordinated the development of voice direct loops on the operational inter-communication system. This unique and practical adaptation allowed OPS to communicate with the director in real-time on any institutional emergencies or matters of security in a confidential way.



Engagement and Partnerships

Because we can achieve more and go farther when we work together, the MS community engages customers and nurtures partnerships inside and outside of the agency on a continual basis. **Here are some examples of how the MS community built and strengthened relationships in 2022:**

- The Counter-Unmanned Aircraft Systems (C-UAS) program within OPS worked closely with the U.S. Space Force and Federal Bureau of Investigation's C-UAS teams to use drone detection and mitigation services to protect launch vehicles for human space flight and Artemis I.
- Through its support of SpaceX Crew-3, Crew-4, and Crew-5 launch activities, OPS facilitated air defense meetings that set an operational cadence between multiple federal entities supporting future launches such as Artemis, SpaceX Dragon, and Boeing Starliner.
- OSI's Space Environments Testing Management Office supported separation and launch testing for Blue Origin and Sierra Nevada Corporation.
- OGC devised innovative ways for NASA to partner with industry on technology development for commercial space stations, commercial space communications systems, cislunar and lunar surface and in-space infrastructure, advanced airframe configurations and reductions in fuel burn and emissions.
- To prevent mission impacts, NSSC worked with Johnson Space Center and the Department of the Treasury to manage and track international payments for International Space Station support that were adversely affected due to sanctions on Russian entities.
- OSI completed an asset inventory assessment at NASA centers for the Agency Master Plan, which provides the process for determining mission need for NASA facilities.
- OCHMO and the Ravn Innovation Campus in South Dakota partnered in the demonstration of a flight of the nephelometer experiment to measure particles in clouds via a weather balloon.
- OCHMO joined Kennedy Space Center and the University of Central Florida's Townes Laser Institute to test the Naval Information Warfare Center's lasers by tracking and illuminating a satellite as the satellite passed.
- OCHMO's Human Research Multilateral Review Board reviewed and approved 204 studies from various space agencies to ensure ethical human subject research on the ISS.
- OSBP collaborated with OP, ODEO, and OSTEM to host webinars for internal and industry partners to ask questions and learn how to navigate NASA's procurement process.
- OCHMO planned the Health and Medical Technical Authority (HMTA) Summit for more than 60 participants to foster organizational dialogue, encourage technical authority best practices, build team camaraderie, and envision the future of HMTA.
- OSBP encouraged NASA prime contractors in the NASA Mentor Protégé Program to enhance protégés' capabilities and encourage long-term business relationships between the entities and contractors.
- OCHMO partnered with the Air Force, Army, and Space Force in an interactive tabletop exercise on food defense—the protection of food from intentional adulteration or tampering—for the NASA Food Safety Working Group.
- MSTO connected with public and private entities interested in using NASA assets like wind tunnels to better understand how NASA can fulfill their needs.
- ACMO facilitated the creation of MSD's Aircraft Management and Advisory Board to make agency-level decisions and recommendations on resources, requirements, strategy, fleet composition, commercial aviation services, and aircraft-related facilities and infrastructure.
- Given the change in NASA's mail delivery volumes at the centers, OSI hosted meetings with FedEx, UPS, and USPS officials to discuss system changes and cost-effective initiatives in the face of supply chain and fuel price complexities.
- NSSC mentored two other Federal agencies as part of GSA's Robotic Process Automation Community of Practice Mentorship Program.



OFFICE OF COMMUNICATIONS ENGAGES MILLIONS IN NASA MISSIONS

OCOMM provides information about NASA throughout the world using strategic delivery methods and effective communication vehicles. In 2022, the office:



Worked with OCIO to share James Webb Space Telescope (JWST) images with millions of people.

Garnered a [Google Doodle](#) about JWST images, coverage on screens in Times Square and London’s Picadilly, and lighting the Empire State Building gold.

Supported **nine documentaries** for JWST.

Facilitated a **DART impact broadcast** that attracted the largest live audience since the Perseverance rover landing in February 2021.

Collaborated with OSTEM to bring more than **40** organizations in person and more than **100** virtual participants to the Artemis Partnership Summit.



Generated over **330,000** virtual registrants and more than **8,000** virtual watch parties through the virtual guest operations program for the Artemis I launch.



Developed collaborations for Artemis with LEGO, Krispy Kreme, Google, and Sesame Street.

Produced Artemis videos with voiceovers by a variety of celebrities, including William Shatner, Drew Barrymore, Mike Rowe, Naomi Ackie, Kelly Marie Tran, Patrick Wilson, and Keke Palmer.

Supported **14** documentaries for Artemis.

Collaborated with the film **“Moonfall,”** which featured a space launch system storyline, and starred Halle Berry and Patrick Wilson.

Provided content and tech expertise for **Disney’s Buzz Lightyear.**



Coordinated a special screening of Disney’s Buzz Lightyear at the Vice President’s residence with Keke Palmer and Uzo Aduba.

Garnered over **422 million** engagements and increased followers by 17% on NASA’s flagship social media accounts.

SPOTLIGHTS

▶ THE OFFICE OF GENERAL COUNSEL ADVISES ON COUNTLESS LEGAL MATTERS

Over the years, OGC has assisted NASA in the development of the commercial crew concept. This office provides commercial, contract, general, and international law support, and in 2022, it supported contracts for commercial crew transport services. It also resolved novel legal issues around the first private astronaut mission and new commercial activities on the International Space Station. **In addition, OGC:**

- Led and expanded NASA’s use of its “other transactions” authority to create public-private partnerships for commercial technology development in three mission directorates, changing how NASA works with U.S. industry.
- Assisted in developing the Artemis architecture for deep-space exploration, sustainable U.S. human and robotic presence on the Moon, and exploration of Mars and beyond.
- Supported OIIR and the State Department in promoting the Artemis Accords—principles to guide space exploration cooperation among nations—and securing nine new signatories.
- Worked with OP, Johnson Space Center, and the Exploration Systems Development Mission Directorate on the contract award and execution for the development of the new generation suits.
- Helped to plan and execute a contract for long-term space launch system hardware production to maximize long-term SLS efficiency.
- Completed an arrangement between NASA and the Russian Federation to ensure proper launch cadences and back-up capability for the safety of the International Space Station and its crewmembers
- Supported OIIR and the State Department in negotiating and concluding the U.S.-Japan Framework Agreement, which will be critical for future exploration cooperation.



▶ PARTNERSHIP OFFICE ADVANCES AGENCY MISSIONS THROUGH AGREEMENTS

RMO’s Partnership Office provides agency-level strategic policy and procedural guidance for all domestic, unclassified partnership matters. For international and interagency activities, the office works closely with OIIR. By partnering with entities that align with NASA capabilities, resources, and strategic goals, the Partnership Office advances NASA’s institutional and programmatic objectives.

In 2022, along with OGC and OIIR, the office led a “Partnerships Sprint Project” to reduce the processing time of non-procurement partnership agreements. The team anticipates the initiatives will reduce the average agreement processing time by 25%.

The office also served as a key advisor to many critical partnership competitions in 2022, including the following:

ARMD’s
Advanced Air
Mobility National
Campaign

ARMD’s
Sustainable
Flight
Demonstrator

SOMD’s
Commercial LEO
Destinations-
Free Flyer

SOMD’s
Communications
Services
Project

STMD’s
Tipping
Point

STMD’s
Announcement
for Competitive
Opportunities

SOMD- Space Operations Mission Directorate | STMD- Space Technology Mission Directorate

Making Support Services Easy to Access and Navigate

Efforts across the MS community aim for easy to access and navigate support services, with the goal of creating a smooth and hassle-free customer experience. **Some top accomplishments in 2022:**

OSI developed a method to share, store and analyze NASA's geospatial data as well as provide technical support to private and public stakeholders accessing the data.

OSI implemented an Environmental Management Strategic Plan to align environmental resources across NASA centers.

To make their research faster and easier, OCHMO developed a tool for human spacecraft developers to search and correlate technical requirements, human risks and application notes.

OCOMM expanded the Internal Communications community of practice and created the first strategic communications plan for internal communications. Along with OCIO, OCOMM replaced the agency's disparate internal web presence with NASA's first-ever single intranet of interconnected sites – OneNASA – creating a simplified, more cost-effective, secure, and collaborative website environment for all employees.

OCIO established a services directory within its intranet "Front Door project" to assist NASA customers and partners in finding OCIO services.

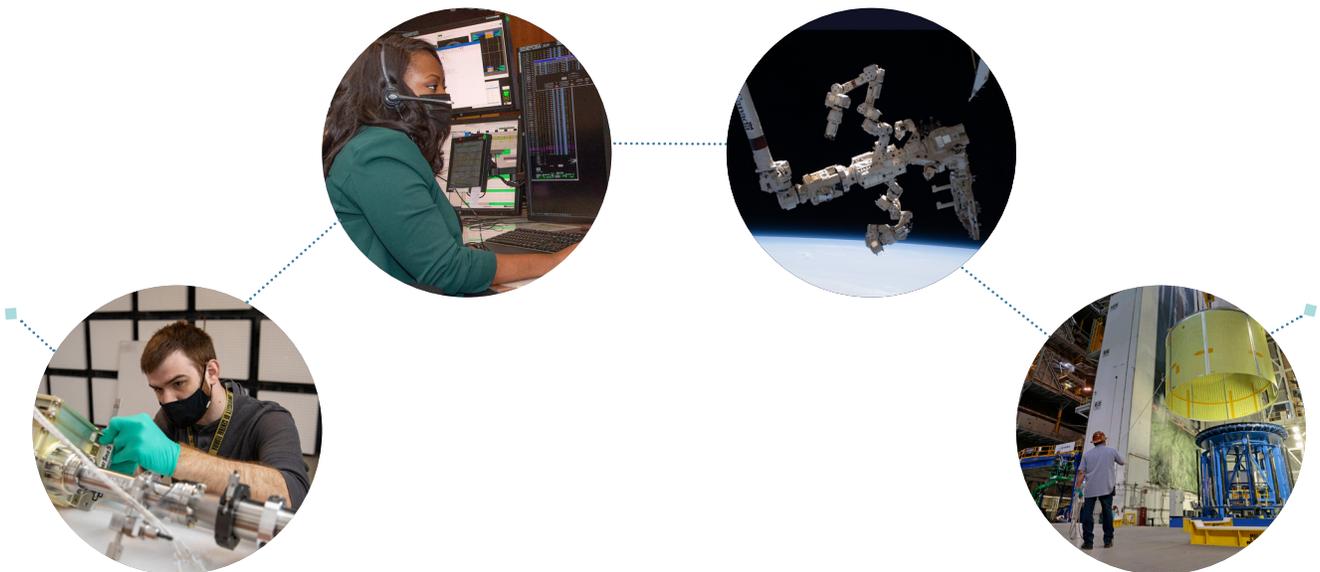
The Chief Veterinary Officer in OCHMO partnered with five animal care and use committees across NASA to standardize the mechanism that ensures animal-based research meets regulations. The Chief Veterinary Officer also implemented an agency-wide program for reporting any concerns about animal care and use.

To guide projects in acquisition development, OSMA wrote standard text for mission hardware developments, and created a digital repository and assistant for generating text.

AGILITY AND INNOVATION

Being agile and innovative in 2022 translated to learning and knowledge sharing, data innovation, doing more with less, integrated risk management, and modernization.

As the world and our operating environment continuously changes, NASA must stay fleet and nimble. To this end, the MS community embraces agility and innovation to provide better support services. This means prioritizing investments to enhance and streamline services, reduce costs, use data to drive processes and decisions, and create environments that support flexible and distributed work teams.



A MESSAGE FROM RESOURCES MANAGEMENT OFFICE

Greetings from the Resources Management Office,

Our office is dedicated to ensuring the effective and strategic distribution of resources to the Mission Support community. Our commitment is to deliver and execute a budget process that is responsive, clear, and reflective of current and future mission needs.



[Robert T. Carver | NASA](#)

In 2022, we aligned with our customers across the Agency to create an environment of continuous transformation and stewardship, with a focus on working more flexibly and creatively while meeting our customer's needs. In listening to our stakeholders, our office adopted a budget cycle that is more agile and comprehensive to support agency priorities and critical needs in a meaningful way.

RMO is not alone in its focus on agility and innovation. Each organization within the Mission Support community is striving to cultivate these important ways of working. Conflicting needs and limited resources require everyone to respond thoughtfully, and there is a continuous effort to improve services through learning and modernization. Offices throughout the MS community are working toward more responsive and creative ways of accomplishing our goals.

As you will see in the following section of this report, the MS community exemplifies this priority through learning and knowledge sharing, using data in new ways, doing more with less, integrating risk management into our work, and making advances to modernize and automate.

In 2023, we will continue to evolve, transform, and innovate for our complex missions. We look forward to being a part of the journey.

Best,

Rob Carver
Director, MSD Resources Management Office

Learning and Knowledge Sharing

Learning and knowledge sharing are necessary for NASA to advance its capabilities, workforce, and facilities. Here are some examples of how the MS community promoted learning and knowledge sharing **in 2022**:

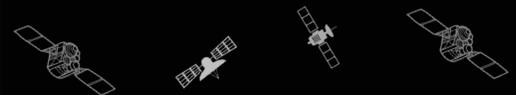
- NSSC mentored the Department of Interior's Interior Business Center and the Internal Revenue Service as part of the General Services Administration's Robotic Process Automation Community of Practice Mentorship Program.
- To improve knowledge of safety awareness efforts, OSMA realigned the Apollo, Challenger, and Columbia Lessons Learned Program and the NASA Safety Reporting System under the NASA Safety Center. NSSC developed training called "Overview of Organizational Silence," and facilitated workshops for the annual Day of Remembrance training.
- The Academy of Program/Project and Engineering Leadership Knowledge Services within OCE delivered 180 courses and held 11 agency-wide webinars. Its Systems and Engineering Leadership Program graduated a cohort of 15.
- At the 2022 NASA Training Summit, OCHMO presented an effort for collaboration across federal agencies to learn organization-wide training methods.
- To lessen the impact of knowledge loss due to retirements and attrition, OCE developed a [toolkit of resources](#) and published a NASA Special Publication, "Ensuring Knowledge Continuity during Employee Transitions."
- OPS decreased training costs by more than \$900,000 by transitioning from multiple days to one day of training per year for personnel who maintain arrest authority.
- OCHMO developed and held training about the Health and Medical Technical Authority to introduce the entity to various groups.
- OSMA promoted cooperation around the role and processes of technical authorities and addressed the impact of new commercial-based contracts on Safety and Mission Assurance practitioners at the OSMA Forum.
- OSI's Logistics Management Division (LMD) led the writing of a section on supply chain risk for the [2022 National Strategy for Advanced Manufacturing](#).
- OCE published eight Technical Bulletins on subjects including new methods to detect damaging vibrations and to remove contaminants in fuel. The office also published guidelines for knock-down factors that were applied to the space launch system used in the Artemis mission.

SPOTLIGHT

Office of the Chief Engineer Examines Elements of Every Mission

As the advisor to the NASA Administrator and others on matters pertaining to the technical readiness and execution of NASA programs and projects, the Office of the Chief Engineer examines elements of every mission.

In 2022, the office conducted over 70 independent assessments for X-planes, the International Space Station, the Commercial Crew Program, Artemis, Gateway and James Webb Space Telescope. OCE also performed tests for the Artemis I launch, James Webb Space Telescope and launch vehicle transonic flight.



Data Innovation

NASA amassed and analyzed data long before it became a standard practice. In 2022, the MS community collected, organized, and shared data in innovative ways to progress its goals. **Some examples:**

- OCIO and OCHCO sponsored the release of NASA's first [Enterprise Data Platform \(EDP\)](#) to make it easier and faster to access data from across the agency—all in one place—to aid in making new discoveries. By employing the new EDP, OCHCO released survey analytics from the Federal Employee Viewpoint Survey in days instead of months, rapidly accelerating the discovery of insights.
- OCIO supported accessibility of NASA-collected Earth science information by providing the expertise to make 54 of the most requested environmental data sets available on the cloud.
- ODEO created dozens of dashboards for NASA centers, Mission Directorates, and Headquarters to view data on workforce diversity, equity, inclusion, and accessibility (DEIA) for recruiting and succession planning.
- OCHCO developed a data sharing process that streamlines the request and delivery of OCHCO data for analysis while maintaining privacy.
- In collaboration with ODEO and OCIO, OCHCO curated 20 DEIA data sets that are customizable for specific needs and enable consistent, reproducible data analysis.
- OCHCO worked with ODEO and OCIO to devise a data pipeline that automatically extracts, transforms, and loads data for analytics into the EDP.
- OP and OCIO reduced the processing time for publishing the NASA [acquisition forecast](#) from three months to one.
- OCHMO's Medical Systems team generated and confirmed the data needed for real-time leadership decisions for mission execution and compliance with White House mandated COVID-19 vaccine self-reporting, attestation, and verification.
- An automated cybersecurity scorecard developed by the Cybersecurity & Privacy Division within OCIO empowers NASA leaders to assess cyber risks to the systems under their purview. Systems owners can then address vulnerabilities.
- To compare workload trends over time, OGC started tracking work in 11 core legal functions in January 2022.
- MSHOO developed a system to track workspace occupation data to better focus operational requirements to inform Future of Work at NASA Headquarters

- In support of the OPS Cost Transparency Project, OPS provided expertise to assist in evaluating the cost efficiency and financial effectiveness of completed projects.
- NSSC enhanced an existing digital portal used by NASA customers and developed new reporting and dashboard capabilities based on the results from its customer experience survey program.
- MSTO implemented a new tool to collect and store data about risk in a standard way, which will improve the consistency and analysis of risk data.

Doing More with Less

NASA's astronauts are accustomed to maximizing the use of available resources such as power, fuel, and air. In 2022, the MS community embodied that ethos by doing more with less. **Here are some examples from the past year:**

- NSSC, OP, and OGC worked with STMD to prevent a significant delay in beginning contract negotiations when the Space Technology Mission Directorate's Small Business Innovation Research and Small Business Technology Transfer Program lacked funding to cover the selected Phase II awards. Working together, the teams developed an exception to begin processing the awards without a purchase request.
- OPS realigned resources by identifying baseline services and core capabilities while considering center uniqueness. This effort resulted in a cost avoidance of \$9.5 million without introducing unacceptable risk to personnel information and resources.
- Working under an unforeseen accelerated award schedule for a large contract, NSSC quickly negotiated specific license types, terms and conditions, and pricing to avoid work stoppages and sustain operations across NASA.
- Faced with a reduced budget, NSSC initiated and partnered with the State of Mississippi and Stennis Space Center (SSC) to consolidate the NASA footprint within the NSSC building. This decreased overall facilities and maintenance costs to NASA and provided SSC with the opportunity to demo aging infrastructure and increase tenant occupancy in the space vacated by NASA.
- OSI's FRED reduced costs by establishing one award for the architect and engineer needs of multiple centers and sites, and started a pilot program that prioritizes maintenance based on the risk to current mission-critical assets. In total, the division's agency-wide maintenance measures saved \$34 million.

DID YOU KNOW

OSI MANAGES NASA'S ENVIRONMENTAL, FACILITIES AND LOGISTICS PROGRAMS.

ALL OF NASA'S HEALTH AND MEDICAL ACTIVITIES ARE OVERSEEN BY OCHMO.

SPOTLIGHTS

▶ *OSI Prioritizes Sustainability*

OSI manages NASA's environmental, facilities and logistics programs. In 2022, the office handled a range of changes for a more sustainable NASA.

Compared to baselines, NASA's energy use intensity dropped 41% and water use intensity fell 35%. The agency also reduced petroleum use, held renewable electricity use at nearly 10% of total electricity use, and reduced major greenhouse gas emissions by 46%.

OSI supported investments of \$35.5M in energy and water initiatives, as well as generated the Energy and Water Program Management Strategic Plan. Across NASA facilities, sustainable building square footage increased to 26% of total building square footage.

In collaboration with DoD and GSA, OSI's LMD assisted with drafting a case amendment to ensure certain Federal contractors disclose their greenhouse gas emissions and report climate-related financial risk while establishing targets to reduce emissions.

▶ *OCHMO Maximizes Its Capabilities*

All of NASA's health and medical activities are overseen by OCHMO. Despite more new NASA programs to advise and a decrease in budget, OCHMO's Chief Health Performance Officers lent insight and oversight for program milestones in the Exploration Systems Development Mission Directorate and the Space Operations Mission Directorate.

Additional achievements include verification of Certification of Flight Readiness and launch and landing readiness for five launches and three landings. OCHMO also developed the Artemis Medical Charters as a medical decision-making structure that includes international partners.

One of OCHMO's newest endeavors was the prioritization of human-related capability gaps for future Moon to Mars missions. The office coordinated with stakeholders and NASA leadership to grow a community of experts who offer integrated and unified information about programs that involve humans.

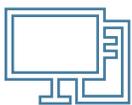
Integrated Risk Management

Each risk addressed in the agency contributes to overall safety and success. In 2022, numerous achievements showcased how the MS community managed uncertainties and prioritized safety in relation to information technology, legal affairs, resource management, facilities and human health. **Learn more:**

- OSMA's Katherine Johnson Independent Verification and Validation (IV&V) Facility identified and closed 26 high priority internal and external risks—most of which were related to software assurance—that impacted 15 projects.
- To better identify and resolve risks for the agency, OSMA transformed an audit to leverage center assessment data and shape a focused, risk-based assessment.
- By replacing an Access database with a stable, low-risk ServiceNow solution, NSSC eliminated risk in missing Treasury Reporting deadlines due to repeated database failures.
- OGC worked with the Partnership Office, centers, and Mission Directorates to revise the approach for determining agency risk and partner liability in certain agreements with industry partners and how to address conflicting priorities.
- OSMA collaborated with NASA supply chain risk management teams to alleviate risk by centralizing activities and investments.
- OCHMO developed and implemented a Health and Medical Technical Authority risk dashboard for improved communications to leadership about risk.
- OSI's new risk management team partnered with the mission directorates to develop a prioritized list of the risks to be addressed by Infrastructure and Technical Capabilities funding.
- In collaboration with NASA's Aeronautics Research Institute and Defense Contract Management Activity, OSI's LMD developed a prototype toolset for analyzing risks, including risks to supply chain economics and resiliency, and climate risk and economic impacts.
- OPS supported 57 launches from the Kennedy Space Center and nine launches from the Wallops Flight Facility by ensuring secure viewing areas and activating the Emergency Operations Center.
- MS leadership teams at NASA centers supported the Technical Authorities and NASA's standards for health and safety, engineering excellence, and mission assurance.

MISSION SUPPORT TRANSFORMATION OFFICE TACKLES RISK FROM ALL ANGLES

MSTO provides guidance, frameworks and tools to help the MS community improve their work and move toward a model of more integrated service. Part of that charge includes monitoring and helping to mitigate potential risks. To facilitate that responsibility, MSTO tackled the following in 2022:



A new tool to collect, centralize, and store risk information.



A first-of-its-kind framework for centers and MSEOs to escalate necessary risks to MSD.



Agency-level risk status to place mission support service delivery risk on par with other agency-level risks.



Risk Management Community of Practice for better serving the MSEOs.



Sharing priority risks with the MSD Risk Board for mitigation analysis, based on prioritization from MSTO's MSD Risk Management Working Group.

Advances to Modernize and Automate

For the MS community, innovation in 2022 included activities to modernize and automate. **Here are examples:**

- OCIO led efforts to apply prototypes of digital solutions to address mission challenges, including the first artificial intelligence and machine learning demonstration on the ISS. The software inspected an astronaut glove and generated a recommendation in 45 seconds, a process that normally takes multiple people and several days.
- OCIO's Facility-Unique and Specialized IT Engineering team developed, operated, maintained, and modernized Wallop Flight Facility's flight and launch systems.
- OSI grew NASA's fleet of Zero-Emission Vehicles by 55 and developed infrastructure for 250 charging ports. In total, NASA centers now have 594 Electric Vehicle charging ports.
- MS leadership teams at NASA centers ensured innovation and mission-readiness at the centers by investing in key infrastructure and collaborative research activities such as working with industry to leverage technology through Space Act Agreements.
- MS leadership teams at NASA centers enhanced NASA's scientific and engineering capabilities by funding specialized equipment and services at laboratories and unique facilities including a new Aerospace Communications Facility.
- NSSC developed and implemented a chat bot as a proof-of-concept ESD Virtual Agent to assist with password reset requests and reduce ESD calls. The technology is now being evaluated for additional functions and for implementation in other customer service areas.
- NSSC partnered with OCHCO and OCIO in the development of a first-of-its-kind bot to automate the processing of within-grade pay increases in the Department of Interior's Federal Payroll and Personnel System, which services the payroll for NASA and other federal agencies.
- To advance the agency's maintenance program, OSI pursued enterprise asset management software.
- OSI purchased a robot to eliminate human inspection and roving during operations to mitigate hearing loss concerns and to perform condition-based maintenance.
- ACMO upgraded NASA's supersonic chase capability by replacing an older aircraft with a newer, more robust and sustainable model.
- OCOMM and OCIO advanced communications through the agency's web modernization project and a strategy to transition NASA TV to an on-demand streaming service.
- Together with OCHCO, OPM and NSSC, OCIO developed an API for ServiceNow integration to consolidate tools for OCHCO and to on-board new employees more efficiently.
- NSSC led modernization efforts to transition seven service areas from ServiceNow to HR Service Delivery and five additional areas to IT Service Automation applications.
- OSMA launched an application to support efficient project planning and introduced a tool for quality engineers to reduce the time for research on manufacturing processes by 50%.
- OSI added a specialist to manage the Enterprise IT Program, which prioritizes investments in innovation.



MISSION SUPPORT COMMUNITY BY THE NUMBERS

CELEBRATING A FANTASTIC YEAR!

MSD CORE

MISSION SUPPORT HEADQUARTERS AND OPERATIONS OFFICE



More than **900** agency leaders attended Future of Work supervisor sessions to make hybrid work successful

The Directives Team digitized **2,000+** historical and current paper records for directives (policies and procedural requirements) and regulations, eliminating five 5-drawer file cabinets

MISSION SUPPORT TRANSFORMATION OFFICE

Identified ways to improve how we gather data on more than **5,000** assets (Partner: OSI)

The Agency Master Plan-Asset Inventory Assessment process is being transformed to a repeatable process eliminating

15 days and **14% waste** (Partner: OSI)



AIRCRAFT CAPABILITY MANAGEMENT OFFICE

Managed **\$146M/year** of reimbursable partnerships of flight operations resulting in the Mission Support Directorate's support for the safe execution of **7,497** flight hours and **3,798** sorties of complex operational, developmental and research flight operations worldwide

MISSION SUPPORT RESOURCE MANAGEMENT OFFICE



\$1.46B in revenue from reimbursable partnerships (As of 9/30/2022)

2,630 active partnership agreements agency-wide

1,410 with the U.S. commercial sector, state & local governments, academic institutions, and non-profits
560 with other Federal agencies
660 with international entities

DIRECT REPORTS

OFFICE OF CHIEF HUMAN CAPITAL OFFICER



Hired **1st** data scientist at NASA in OCHCO - Developed job profiles, assessments, and USA Staffing assessment templates for the new 1560 Data Scientist job series

Filled over **1,600** positions enabling mission success for every NASA directorate, program and mission support organization



Hiring volume increase of **60%** from 2021 baseline was delivered on budget (Partner: MSTO)

Reduced average time to hire from **104** days to **85** days.



OFFICE OF PROTECTIVE SERVICES

Responded to a total of nearly **8,200** emergency calls across the agency

Provided Identity Credentialing for more than **25,000** employees requiring access to a NASA facility

Conducted the timely adjudication of more than **7,000** foreign national requests for physical and logical access



DIRECT REPORTS

OFFICE OF STRATEGIC INFRASTRUCTURE

Screened over **45,000** items as potential historical artifacts, placing over **14,000** articles with museums, universities, schools, and library
(Partner: OSI's LMD)



As of end of FY22, our centers have **594** Electronic Vehicle charging port

NASA SHARED SERVICES CENTER

Awarded **2,000** grants valued in excess of **\$800M**

in support of missions across all of NASA



Placed **3,522** orders valued in excess of **\$150M**

to support missions across all of NASA

Made a critical award for agency **Microsoft** buys – the highest dollar value action in the history of the team valued at **\$114M**



PARTNER OFFICES

OFFICE OF COMMUNICATIONS



NASA flagship social media accounts had **332 million social media followers** in FY22 – up 17% from 284 million in 2021



8,000+ virtual watch parties registered for Artemis.

More than **1 million people** registered for the Virtual Guest Operations program



OFFICE OF PROCUREMENT



NASA's procurements totaled over **\$19.9B**

Over **26,600** procurement actions

NASA received its **12th consecutive** clean financial audit opinion



OFFICE OF DIVERSITY AND EQUAL OPPORTUNITY

NASA was recognized by **LinkedIn** as the **top diversity champion** among U.S. employers with a workforce of **10,000 to 30,000 employees**



Improved efficiency of the Equal Employment Opportunity complaint process ensuring that employees' claims of discrimination were timely addressed.

THIS INCLUDED: 100%



closure of pre-FY 2022 Final Agency Decision inventory

timely completion of all FY 2022 investigations

timely and legally-sufficient issuance of Procedural Dismissals, Final Agency Decisions, Final Agency Orders, and Equal Employment Opportunity reports.

OFFICE OF THE CHIEF INFORMATION OFFICER



Blocks 5B attempts per day of malicious and unauthorized traffic from accessing NASA's internal networks and systems

Implemented intelligent automation of manual processes saving approximately **9,600 labor hours or 4.6 full time employees**



Over a two-day period, for James Webb, according to data from Google Analytics and our Content Delivery Network, more than **90,000 thousand users** visited images.nasa.gov, resulting in almost **400,000 thousand web page views**



PARTNER OFFICES

OFFICE OF THE GENERAL COUNSEL

Supported the procurement and award of the **\$3.5B**

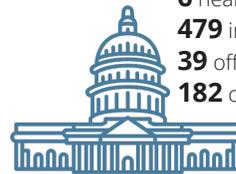


Exploration Extravehicular Activity Services contract, as well as the award of the first task order (value of \$228.5 million) to deliver a new generation of space suits for Artemis missions and the ISS

Provided complex legal services in support of more than **200 procurement actions**

OFFICE OF LEGISLATIVE AND INTERGOVERNMENTAL AFFAIRS

2030: The year the International Space Station mission was extended to, due to passage of the NASA Authorization Act of 2022



Congress:
6 hearings covered
479 individual responses
39 official reports
182 outreach visits

275
Newsworthy Items
forwarded to the Hill

OFFICE OF SAFETY AND MISSION ASSURANCE

Enhanced SMA expertise across the Agency workforce

which included:



Providing and maintaining SMA training material for **322 online courses**

Offering **12 agency wide** SMA discipline webinars (**1,750 attendees**)

Hosting the Chief Safety Officer Summit

(295 safety professionals)



Executive Safety Leadership Program

(46 Executives from across the agency)

OFFICE OF THE CHIEF ENGINEER

NASA Engineering and Safety Center conducted over **70 independent assessments** of NASA's highest risk and highest priority mission work

NASA's Academy of Program/Project and Engineering Leadership Knowledge Services offered **180 courses, 11 Agency-wide webinars** to the NASA technical workforce, and graduated a **Systems and Engineering Leadership Program cohort**, providing program and project managers and systems engineers with important opportunities to develop and apply their skills



AGENCY TECHNICAL AUTHORITIES

Saving **\$600k/year** that can be applied directly to IV&V technical work.



◆ IV&V Program is migrating its Fairmont operations into a single building, the Katherine Johnson IV&V Facility, and establishing a lease with West Virginia University (vs contract). To date, IV&V migrated all but one small portion (still in work)

◆ IV&V all also worked to reduce contractor space in non-Fairmont locations, which will save another \$600,000 per year that can be applied directly to IV&V technical work

OFFICE OF THE CHIEF HEALTH AND MEDICAL OFFICER

The Human Research Multilateral Review Board reviewed and approved **204 international studies** to ensure ethical human subject research on the ISS

Saved the Agency >

\$3M in purchasing off the shelf application for WH mandated COVID-19 vaccine self-reporting, attestation, and verification



ACRONYM	ACRONYM DEFINITION
ACMO	Aircraft Capability Management Office
AFRC	Armstrong Flight Research Center, Edwards, CA
AIA	Agency Investment Analysis
ALPS	Agency Library Portal System
AMP	Agency Master Plan
ARC	Ames Research Center, Moffett Field, CA
ARMD	Aeronautics Research Mission Directorate
ATA	Agency Technical Authorities
CoF	Construction of Facilities
COO	Chief Operating Officer
C-UAS	Counter-Unmanned Aircraft Systems
DEIA	Diversity, Equity, Inclusion, and Accessibility
EDP	Enterprise Data Platform
EEO	Equal Employment Opportunity
ERG	Employee Resources Groups
ESD	Enterprise Service Desk
EV	Electric Vehicle
FoW	Future of Work
FRED	OSI's Facilities and Real Estate Division
FY	Fiscal Year
GRC	Glenn Research Center, Cleveland, OH
GSA	General Services Administration
GSFC	Goddard Space Flight Center, Greenbelt, MD
HMTA	Health and Medical Technical Authority
ISS	International Space Station
IV&V	Katherine Johnson Independent Verification and Validation Facility
JPL	Jet Propulsion Lab, Pasadena, CA
JSC	Johnson Space Center, Houston, TX
JWST	James Webb Space Telescope
KSC	Kennedy Space Center, Titusville, FL
LMD	OSI's Logistics Management Division
LaRC	Langley Research Center, Hampton, VA
MS	Mission Support
MSD	Mission Support Directorate
MSHOO	Mission Support Headquarters and Operations Office
MSEO	Missions Support Enterprise Office
MSTO	Mission Support Transformation Office
MSFC	Marshall Space Flight Center, Huntsville, AL
MSPMC	Mission Support Program Management Council
NSSC	NASA Shared Services Center
OCE	Office of the Chief Engineer

Continued on next page

ACRONYM	ACRONYM DEFINITION
OCFO	Office of the Chief Financial Officer
OCHCO	Office of the Chief Human Capital Officer
OCHMO	Office of the Chief Health and Medical Officer
OCIO	Office of the Chief Information Officer
OCOMM	Office of Communications
ODEO	Office of Diversity and Equal Opportunity
OGC	Office of the General Counsel
OIG	Office of the Inspector General
OIIR	Office of International and Interagency Relations
OLIA	Office of Legislative and Intergovernmental Affairs
OMB	Office of Management and Budget
OP	Office of Procurement
OPM	Office of Personnel Management
OPS	Office of Protective Services
OSBP	Office of Small Business Programs
OSI	Office of Strategic Infrastructure
OSMA	Office of Safety and Mission Assurance
OSTEM	Office of STEM Engagement
PMSO	Project Management and Support Office
PPBE	Planning, Programming, Budgeting, and Execution
RAD	Robotics Education & Competition Foundation Aerial Drones
RMO	Mission Support Resource Management Office
SBA	Small Business Administration
SSC	Stennis Space Center, Kiln, MS
SMD	Science Mission Directorate
SOMD	Space Operations Mission Directorate
SPARTA	Smart Projects and Reviews with Transformative Analytics
STEM	Science, Technology, Engineering, and Mathematics
STMD	Space Technology Mission Directorate
U.S.	United States

APPENDIX