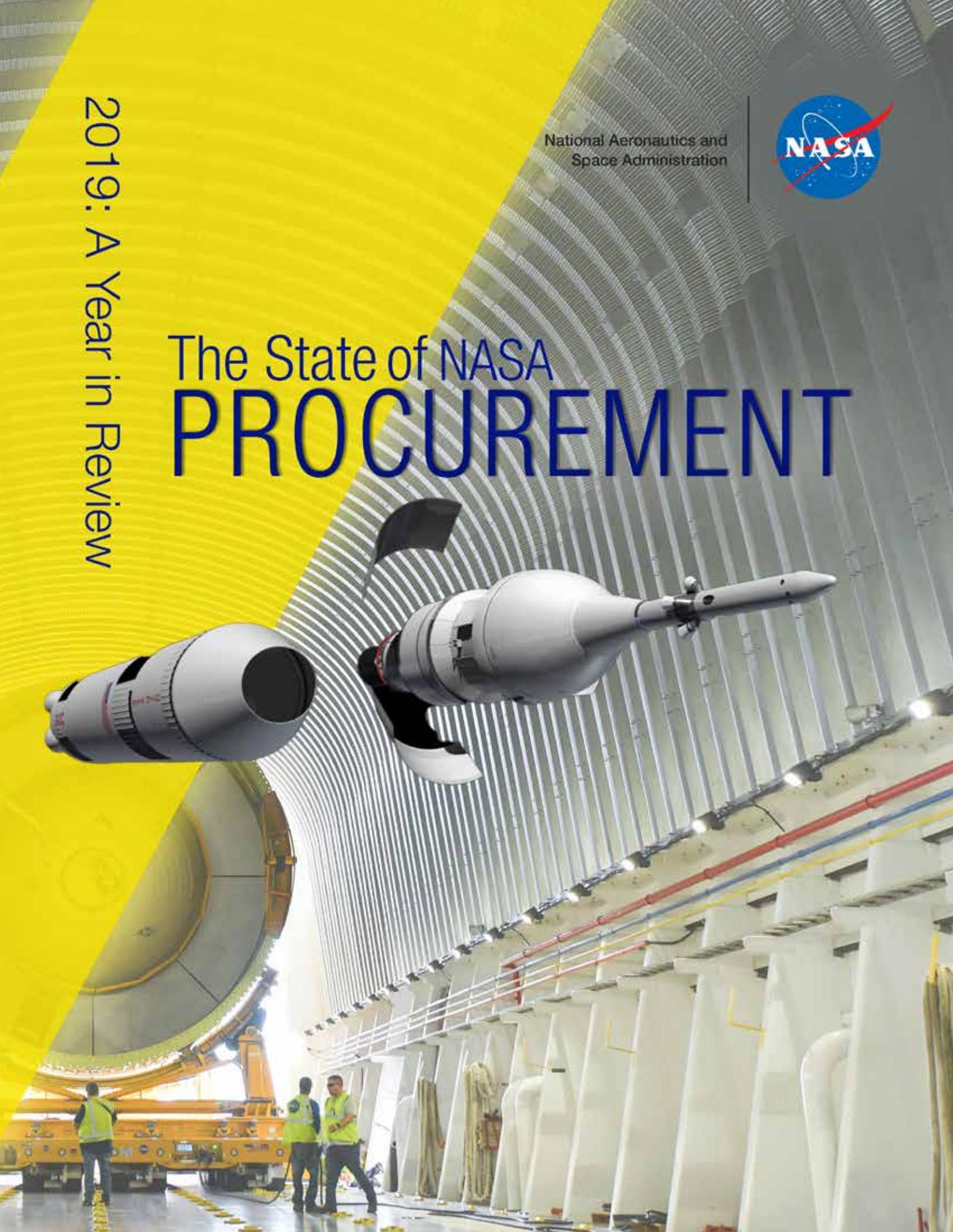




National Aeronautics and
Space Administration

2019: A Year in Review

The State of NASA PROCUREMENT



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Purpose of the

Publication: Overview of the accomplishments and achievements of the NASA Office of Procurement.

Office of Procurement**Mission Statement:**

Acquisition excellence in an evolving environment.

Office of Procurement

Vision Statement: Explore and execute innovative, effective, and efficient acquisition business solutions to optimize capabilities and operations that enable NASA's missions.

OVERVIEW

The NASA Headquarters Office of Procurement oversees the acquisition process to support successful accomplishment of the Agency's current and future missions. It provides policy, oversight, and optimization of procurement resources, and it supports Mission Directorate acquisition strategies to enable more efficient operations for the Agency.



WELCOME LETTER

It is an absolute pleasure to welcome you to our inaugural issue! It's an exciting time for the Office of Procurement as we continue to grow and adapt in an evolving acquisition environment while remaining agile, innovative, and motivated to achieve the Agency's mission.

Our organization is undergoing a transformation like no other to meet the Agency's new priorities, including landing the first woman and the next man on the Moon by 2024. Our workforce and partners have embraced the challenges to achieve the vision of our Administrator. We should all be very proud of where we are today and excited about where we are headed.

Before I close, I'd like to thank each of you for taking the first step to learn about what we do best. The world of procurement is an exciting arena as these highlights can attest. We will endeavor to continue to inspire one another with our cutting-edge accomplishments, which we could not achieve without the collaborative efforts and support of the entire NASA community.

My personal respect and thanks go out to all of you.

Sincerely,

A handwritten signature in black ink that reads "Monica".

Monica Y. Manning

BACKGROUND

The NASA Headquarters Office of Procurement oversees the acquisition process to enable the Agency's current and future missions. It provides policy, oversight, and optimization of procurement resources, and it supports Mission Directorate acquisition strategies to enable more efficient Agency operations.

The Office of Procurement's previous framework operated under a decentralized operations model. Each of the NASA Center Procurement Offices had operated interdependently to support and deliver optimal business solutions to meet NASA needs effectively, efficiently, and with a flexible management approach (e.g., people, tools, acquisition assignments, strategic sourcing).

In 2017, NASA commissioned the Mission Support Future Architecture Program (MAP) to study the organization and operations of NASA's mission support offices to identify potential transformational changes that could yield efficiencies in how mission support services enable and facilitate NASA's mission. Under the MAP initiative, NASA is implementing a phased plan to transform all mission support services from their current decentralized state to an enterprise operating model while maintaining mission focus, improving efficiency, ensuring local authority, and valuing the workforce. Mission support services are those functions traditionally managed and

operated at each NASA Center and at Headquarters that provide the backbone services and capabilities that support mission programs and projects. Mission support services include functions such as financial management, human capital, information technology, strategic infrastructure, communications, education, procurement, protective services, small business, general counsel, and diversity and equal opportunity.

The Office of Procurement initiated its transformation activities, realigning from a decentralized operating model to an enterprise operating model focusing on four key areas known as the Four P's: People (roles and responsibilities), Procure, Process, and Policies. The first quarter of 2019 instituted the realignment of budget authority, supervision, enterprise governance, and a service delivery model focused on Product Service Lines under the Assistant Administrator for Procurement. This strategic approach to operations established a nationalized procurement workforce that will ultimately increase effectiveness and efficiency; reduce procurement lead times; and standardize policies, procedures, and information technology platforms, which will increase productivity and proficiencies and establish a common user experience.

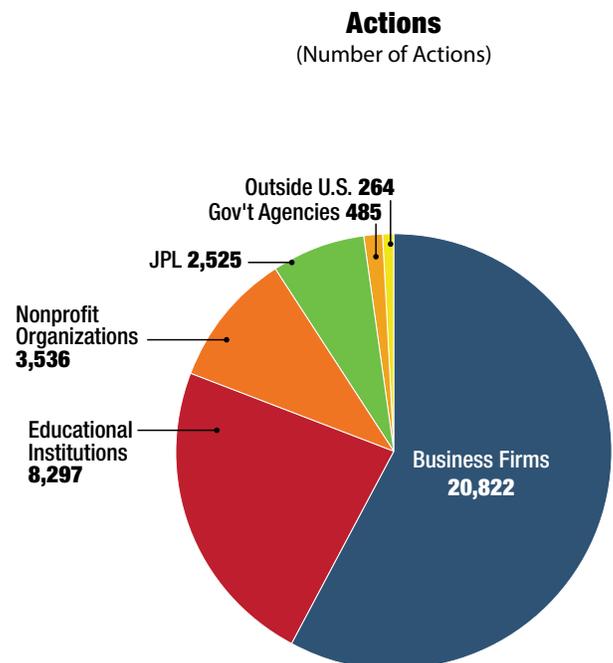
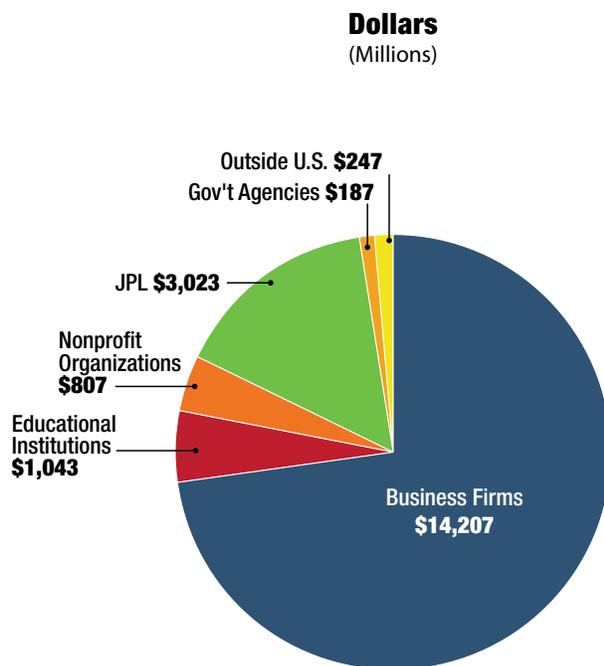
TRENDS IN AWARDS BY TYPE OF CONTRACTOR

| Fiscal Year | Total NASA Obligations | Procurement Obligations | |
|-------------|------------------------|-------------------------|------------------------|
| | | Amount | % of Total Obligations |
| 2019 | \$23,970.8 | \$19,514.4 | 81.4% |
| 2018 | \$23,374.8 | \$19,196.7 | 82.1% |
| 2017 | \$22,678.2 | \$18,502.5 | 81.6% |
| 2016 | \$22,527.0 | \$18,687.9 | 83.0% |
| 2015 | \$21,070.5 | \$17,191.5 | 81.6% |

NASA spends approximately **81 percent of its budget on acquiring goods and services.**

NASA's **procurements totaled over \$19.5 billion.**

The number of procurement **actions totaled over 36,000** (e.g., awards, modifications) and managed in excess of 25,000 instruments (including contracts, PO, TO, DO).



SATISFACTION SURVEY RESULTS

NASA was ranked #1
in Government-wide
Contracting Function
Satisfaction Scores

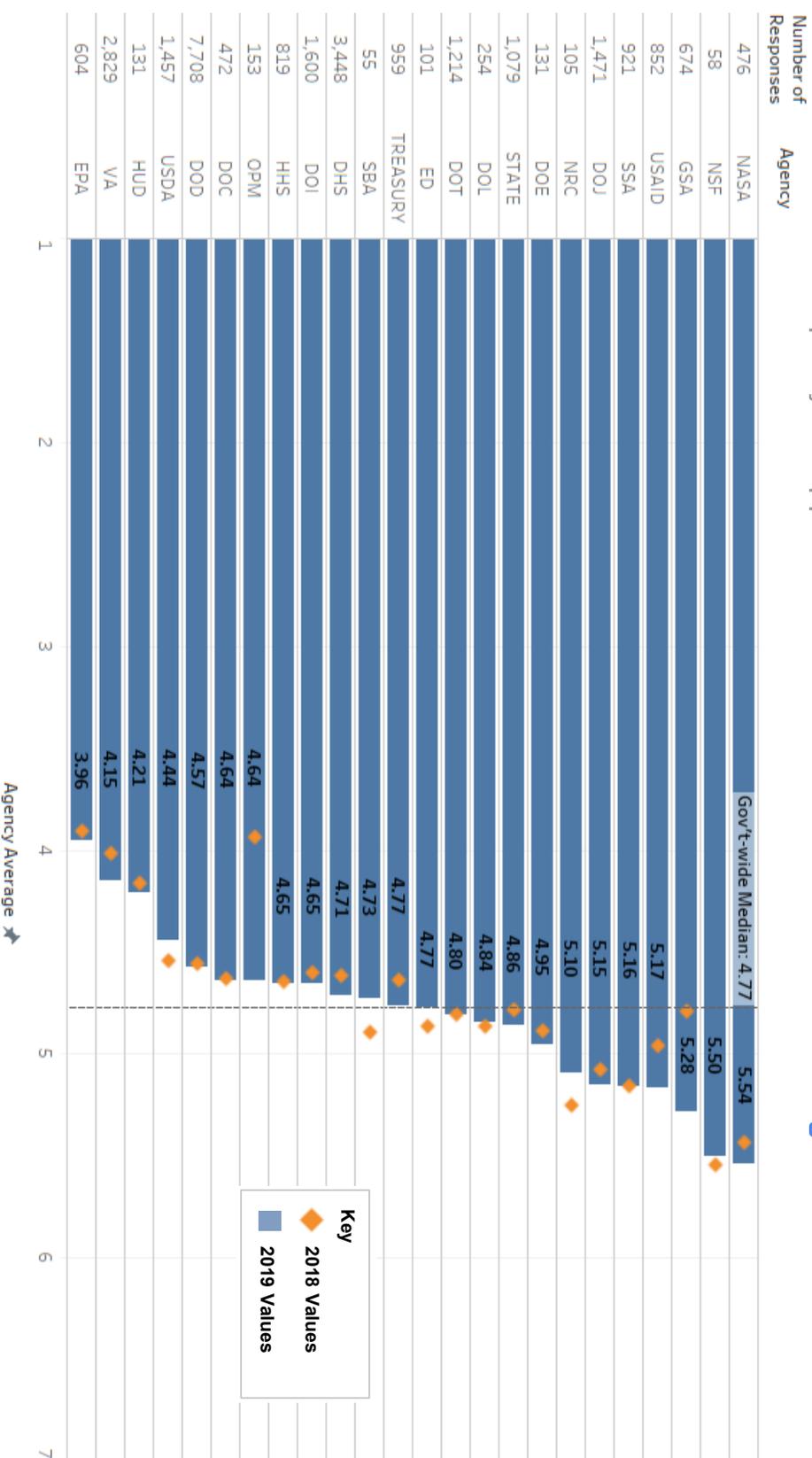
Customer Satisfaction Survey Overview

In March 2019, General Services Administration (GSA) surveyed all Federal employees at the CFO-Act agencies to ask for their satisfaction with mission support services during the previous 12 months. The primary population, supervisors GS-13 and above, received the entire survey, while the rest of the survey population only received a subset of questions on the IT function and IT commodity service areas (Development, Modernization and Enhancement [DM&E] and Operations and Maintenance [O&M] service areas were excluded). Collectively, the responses provide a detailed picture of customer satisfaction for 24 service areas across the Contracting, Financial Management, Human Capital, and IT functions.

| | 2019 Responses | 2018 Responses |
|----------------|------------------------|------------------------|
| Supervisors | 40,011 count (21.11%) | 36,048 count (19.88%) |
| Overall Survey | 279,107 count (21.50%) | 301,204 count (21.76%) |

Gov't-wide Contracting Function Satisfaction Scores

I am satisfied with the quality of support and solutions I received for Contracting Function services.



Visit css.d2d.gsa.gov to view the complete agency report with component and sub-component level breakdowns. Please reach out to missionsupportcss@research.gsa.gov with remaining questions.

SATISFACTION RESPONSE KEY

1 Strongly Disagree 2 Disagree 3 Somewhat Disagree 4 Neither Agree Nor Disagree 5 Somewhat Agree 6 Agree 7 Strongly Agree

PROCUREMENT MISSION: THE FOUR P'S



PEOPLE

Develop, train, inspire, and motivate the acquisition workforce.

PROCURE

Deliver exceptional, timely acquisition business solutions and results to enable NASA missions.

PROCESS

Develop sound and flexible procurement processes that integrate the acquisition workforce.

POLICIES

Deliver procurement policy that is required, clear, and easily implemented.

PEOPLE

Develop, train, inspire, and motivate the acquisition workforce



Deputy Assistant Administrator of Procurement, William “Bill” Roets:

“The accomplishments of the Office of Procurement are the results of the collaborative efforts of each individual in the organization. When we work together, there is no limit as to what we can accomplish.”

Priorities and Initiatives

Create a nationalized acquisition workforce that

- implements an enterprise-wide acquisition workforce model that leverages employee skills and capacity across the Agency;
- ensures agility in workload distribution across the Agency in order to meet evolving mission needs; and
- increases procurement capabilities through the establishment of subject matter experts (e.g., pricing, source selection, and contract closeout communities of practice).

Execute a strategic workforce plan in coordination with the Office of the Chief Human Capital Officer (OCHCO) that

- establishes the appropriate FTE/WYE complement;
- fully utilizes recruitment and retention incentives, job rotations, detail assignments, and direct-hire authority to provide opportunities for employees to attain diverse career experience and broaden professional capabilities; and

- institutes a procurement professional mentoring and coaching program.

Improve acquisition career training and leadership development by fostering an environment of growth and learning by

- transitioning to the Federal Acquisition Institute Training Application System (FAITAS) to track acquisition training/certification;
- phasing in the planned transition of Procurement (705), CORs (3,626), and Program and Project Managers (183); and
- leveraging technology to provide just-in-time training to the acquisition workforce.

PEOPLE ACCOMPLISHMENTS

Leveraged the Office of Procurement's nationalized acquisition workforce to meet the evolving mission needs.

This was accomplished by leveraging employees' skills and capacity; implementing an Enterprise Strategic Workforce Plan; and bringing a renewed focus on recruitment, retention, and succession planning.

Integrated 13 working groups (e.g., structure, people, risk) that consisted of 120 diverse participants representing all of the NASA Centers.

Eighty participants were from the OP and Office of Small Business Programs (OSBP) workforce, and 40 participants were from multiple diverse functional areas (e.g., CIO, OSI, OCHCO, OGC, OCFO). This diverse workforce brought new and innovative opportunities to increase operational proficiency and streamline acquisitions practices while maintaining OP's agility to meet NASA's evolving mission needs.

Inaugurated the first two sessions of speed mentoring between Procurement's leadership team and the procurement workforce.

A total of 80 percent of OP's workforce at Kennedy Space Center (KSC) and Ames Research Center (ARC) participated. Positive reviews from the Procurement leadership and workforce were received. The mentoring sessions have now set the bar and are incorporated into future OP leadership activities.

Executed the first Procurement Executive and Supervisory Leadership Forum at KSC, October 2019.

Numerous influential leaders from across the Agency and external organizations discussed leadership perspectives. Attendees focused on the theme "Connect, Create, and Cultivate." In excess of 90 supervisors were in attendance, and positive reviews were received.

Training

NASA has a diverse, highly trained, and skilled Acquisition Workforce that is very proud and takes pride in supporting NASA's mission. This professional workforce includes Contracting Officers, Contracting Specialists, Contracting Officer Representatives, Contract Price Analysts/Cost Analysts, Procurement Analysts, and Senior Program and Project Managers. A very comprehensive contracting training program, required by the Federal Acquisition Certification (FAC) training programs, has been established. The Office of Procurement (OP) is updating contracting to the 21st century and creating and cultivating an acquisition environment that supports, empowers, inspires, and promotes a dynamic acquisition workforce at all FAC-C levels and operates with innovative acquisition reporting tools and collaborative communication and conferencing tools.

NASA's Acquisition Workforce—the People

Effective acquisition outcomes are a direct result of having people with the right skills performing acquisition functions that support projects and programs. NASA has the right people with the right skills necessary to execute innovative, effective, and efficient acquisition business solutions to optimize capabilities and operations that enable NASA's missions. NASA acquisition professionals lead acquisition teams that plan, award, and manage a myriad of contracting requirements and contract types ranging from institutional supply and service fixed-price contracts to complex IT, scientific, and research and development cost type contracts in support of NASA's

routine operational services, and major projects and programs such as Artemis, Gateway, SLS, ISS, and so many more that support NASA's mission.

The Acquisition Workforce is a critical segment of NASA's Workforce, and the Agency continues to provide training and development activities to ensure the workforce has the knowledge, skills, and abilities to award and manage complex contracts and can maintain FAC-C certifications at all levels as required by Federal Guidelines.

Acquisition Human Capital Plan

The federal government, overall, has a shortage of contracting resources at various FAC-C levels. It is widely discussed among acquisition leaders and known in the contracting community that the contracting workforce has remained stable while the work has increased in size and complexity due to mission requirements. NASA is not exempt from this issue, but our people are resilient and work hard to ensure that contracts are awarded in a timely manner and manage contracts to ensure that each contractor's performance is within cost, schedule, and contract performance standards.

In FY19, NASA had approximately 4,500 acquisition professionals. This includes approximately 750 procurement professionals that are in the 1102 Contracting Series with position titles of Contract Specialist, Contracting Officer, Contract Price/Cost Analyst, Procurement Analyst, and more. Other series that support contracting activities include the 1101 General

Business and Industry Series and the 1105 Purchasing. NASA has 3,595 Contracting Officer Representatives (CORs) and, on average, 171 Program/ Project Managers (P/PM). As of 2018, there was approximately 20% of the workforce eligible for retirement Agency-wide, with the projection increasing to ~40% by the end of 2023. In the Acquisition workforce, there are approximately 14% retirement-eligible as of 2018, and in five years, we project that number to increase to 30%. NASA is being very proactive and exhausting numerous methods to recruit, acquire, and sustain a diverse acquisition workforce, such as direct hire authority; NASA Pathway Program; hiring interns, recent graduates, and presidential management fellows; rehiring annuitants in special circumstances; surge hiring; and other special hiring authorities to sustain our acquisition workforce.

NASA's Acquisition Workforce – Certification Programs and Enhancements

The Federal Acquisition Certification (FAC) training programs include the Federal Acquisition Certification in Contracting (FAC-C), Federal Acquisition Certification for Contracting Officer's Representatives (FAC-COR), and the Federal Acquisition Certification in Program and Project Managers (FAC-P/PM)(OFPP Policy Letter 05-01, Developing and Managing the Acquisition Workforce). These programs establish consistent competencies and standards for the acquisition workforce that perform key acquisition work roles and duties. NASA's Acquisition Workforce is 100% FAC-C certified: Level III at 61%, Level II at 31%, and Level I at 5%, see chart on the following page.



Director of the Procurement Strategic Operations Division, Jeffrey “Jeff” Cullen:

“The Office of Procurement has been undergoing a transformation over the last couple of years to an enterprise operating model that is increasing efficiency and leveraging workforce strengths from throughout the Agency to support NASA's missions. This remarkable transformation could not have been possible without the active and supportive engagement of personnel involved in and affected by the acquisition process.”

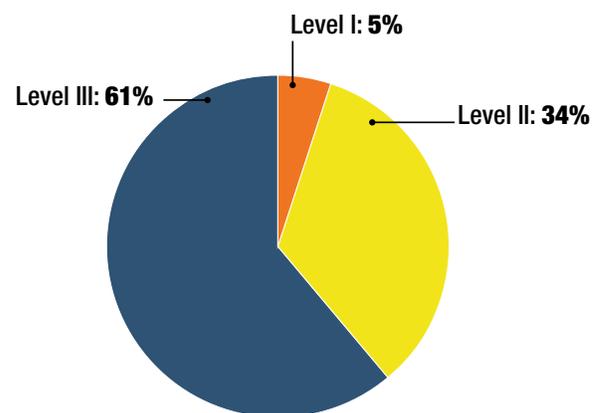
NASA's training and certification program for contracting is based on the requirements of the Federal Acquisition Certification in Contracting (FAC-C) Program with a unique twist. NASA's FAC-C Program includes general education, training, and experience requirements for contracting professional, and includes unique certification requirements in addition to the Acquisition Certification (FAC) requirements. The 1102 career paths provide a framework for career development that contracting personnel and their supervisors use to identify suitable training classes and developmental projects and opportunities. NASA has focused on developing cost and pricing skills and information technology skills in its acquisition workforce and has taken steps to grow this career path. New changes to the FAC-C Program are highlighted below:

- Updated the Procurement Career Development and Training Policy, NASA Procurement Career Development and Training Program Policy Handbook, revised October 2019.
- Offers an intense, comprehensive advanced cost and pricing course, entitled Advanced Contract Pricing, for its FAC-C Level III certification curriculum. This course was established to strengthen cost and pricing skills within the contracting workforce. This course is in addition to the basic and advanced Cost Proposal Evaluation courses offered as part of the NASA Acquisition Training Program.
- Refreshed its unique Federal Acquisition Certification in Contracting (FAC-C) program and added the Advanced Contract Pricing Course. The Office of Procurement also added an Agency-unique experience time frame that requires 1, 3, and 7 years of experience for FAC-C Levels I, II, and III, respectively.

- Participates in the FAC-C Digital Services (FAC-C DS) program. The FAC-C Digital Services specialization was launched on May 15, 2018. This program establishes a core –plus specialization in Digital Services and IT contracting.
- Emphasizes the many contracting training resources available for the 80 Continuous Learning Points (CLP) required every two years from the date of entry into the acquisition workforce to maintain FAC-Cs that involve classroom training, virtual training and other options that do not involve formal classroom training.
- Adds speed mentoring with Procurement Leadership from Headquarters and all ten Procurement Officers to share information and exchange experiences with new, mid-level, and veteran acquisition professionals.

FAC-C Certification:

The percentage of 1102 personnel with FAC-C certification is 100% (as of November 2019).



What are NASA's goals for managing and strengthening the acquisition workforce through FY21?

NASA Acquisition Training Program goal is to: 1) ensure our acquisition professionals have the knowledge, skill, abilities, and experience to work on mission essential and complex requirements; and 2) adequately prepare the workforce for all FAC-C level stages with necessary training and experience.

The Office of Procurement works closely with Procurement Officers at all Centers and NASA's Acquisition Career Manager and COR Program Manager works closely with the Center Training Coordinators to closely monitor and track the training needs of the acquisition workforce and monitor the number of experienced and trained acquisition workforce at each of the NASA Centers. Transformative activities established in 2019 included knowledge management, leadership training, and mentoring programs.

Acquisition Workforce Training Courses

Our training program is designed to ensure our acquisition workforce: 1) has access to acquisition training that aligns with their training needs, work duties, and professional and personal schedule; 2) has access to non-contracting courses to enhance leadership skills, business and decision-making skills, and communication skills; and 3) is introduced to innovative training to keep them abreast of new NASA and Federal contracting initiatives relevant to their contracting duties.

In FY19, OP held over 10 acquisition training courses (CON courses, COR course, webinars, and other courses). The CON courses reached over 70 procurement professionals to support their pursuit of Federal Acqui-

sition Certification in Contracting (FAC-C) certification and career development. To improve cost and pricing skills across the Agency, OP established a new Advanced Contract Pricing Course; two sessions were regionally organized across the Centers that impacted about 30 acquisition professionals. The course has become one of the most sought-after courses across the Agency for its use of innovative case studies, candid discussions with procurement leadership, and integration of real-time presentations, along with business and decision-making skills. This dynamic course requires the student to use business and decision-making skills, critical thinking, oral communication, and collaboration skills. During this time frame, OP offered COR certification training to 374 CORs.

NASA Procurement Quarterly Training Series are conducted via webinars. The webinars are held quarterly and cover innovative and timely contracting topics, such as "The Evolution of Audit Services and Contract Closeout, Category Management," and "MAP Engagement," over 500 learners from various disciplines participated in the *OP Quarterly Webinar Series (DOC)*. Find more information at [https://ooptechportal.hq.nasa.gov/Documents/Quarterly Webinar Series \(DOC\).doc](https://ooptechportal.hq.nasa.gov/Documents/Quarterly%20Webinar%20Series%20(DOC).doc).

Training Innovations

The Office of Procurement has been working to ensure our acquisition workforce: 1) has access to acquisition training that aligns with their training needs, work duties, and professional and personal schedule; 2) has access to non-contracting courses to enhance leadership skills, business and decision-making skills, and communication skills; and 3) is introduced to innovative training to keep them abreast of new NASA and Federal contracting initiatives relevant to their contracting duties.

FAITAS Transition for 1102 Acquisition Workforce

In 2019, OP planned the use of the Federal Acquisition Institute Training Application System (FAITAS) and on November 18, 2019, NASA successfully transitioned to FAITAS! This system enables the use of the FAC-C Certification and Continuous Learning Points (CLPs) through FAITAS modules for the 1102 acquisition workforce (AWF). FAITAS is now NASA's system of record for the Agency's FAC-C certification program. FAITAS transition guidance was developed to assist with the smooth transition of all 1102 to *FAITAS - FAITAS Implementation FAQs and FAITAS Employee Quick Start Guide* or <https://ooptechportal.hq.nasa.gov/Pages/CDTC.aspx>.

This enterprise solution will allow the Agency greater insight into the AWF training and career development portfolio. The FAITAS modules will enable OP to transform the award, maintenance, and management of the Agency's FAC-C certification program into an automated system that will promote efficiencies and, in turn, increase cost savings. NASA's workforce will have increased access to FAC-C training, continuous learning courses, and real-time management of their certification and continuous learning points and career development opportunities.

FY19 NASA ACQUISITION IMPROVEMENT AWARDS

The winners of the FY19 NASA Acquisition Improvement Awards (AIA) were selected after a thorough and extensive screening process. In honor of their tireless efforts, the Office of Procurement (OP) appreciates the innovative solutions that the recipients directly contributed to the effective and efficient acquisition business solutions that enable NASA's mission.



Goddard Space Flight Center

Commercial Lunar Payload Services Source Elevation Board

Team Members:

Christopher Culbert
Theresa Stevens
Rob Landis
Nantel Suzuki
Greg Chavers
Sarah Noble
Mary Faller
Darilyn Peddie

This competitive acquisition was for Commercial Lunar Payload Services (CLPS), the first procurement of its kind soliciting sources to provide commercial transportation services to deliver NASA payloads to the lunar surface. The contractors are responsible for all activities necessary to safely integrate, accommodate, transport, and operate NASA payloads using contractor-provided assets, including launch vehicles, lunar landers, lunar surface systems, Earth reentry vehicles, and associated resources. The resulting multiple-award, firm-fixed-price Indefinite Delivery Indefinite Quantity (IDIQ) contracts have a maximum ordering value of \$2.6 billion, cumulatively, with a 10-year ordering period through November 28, 2028. The solicitation also included a unique on-ramp capability that will potentially allow new contracts to be added every 2 years, or as new contractors emerge and demonstrate the ability to meet the contract requirements.

This procurement had an extremely aggressive, high-visibility schedule, with just 1 year between the completion of draft requirements documents and initial strategy discussions and the resulting contract awards. This included a NASA HQ Procurement Strategy Meeting (PSM) and Source Selection Authority (SSA). Multiple streamlined strategies were required to facilitate the schedule, which resulted in a 1-month evaluation schedule.



Team Members:

Mary Kincaid

Vance Benton

Karen Kelldorf

Tracy Hom

Keith Krut

Brandi Quam

Johnson Space Center

Strategic Professional Engineering Assessment Blanket Purchase Agreement

This award recognized the achievements of the Strategic Professional Engineering Assessment Contract (SPEAC) Streamlined Procurement Team (SLPT) and their acquisition processes. The individuals nominated were part of a dedicated team that defined and implemented improvements in the source evaluation process that resulted in the award of a best-value Blanket Purchase Agreement (BPA) for Johnson Space Center (JSC) and the Agency.

The SPEAC team was very innovative in its development of approaches and techniques to the acquisition processes that facilitated this procurement. The team faced a specific challenge that it had to overcome in order to make this procurement a true success. The board had to address the fact that the last several competitions for this work saw that only one proposal was received in response to the Request for Proposal (RFP).

The SLPT was composed of JSC personnel who served as either voting members or ex officio members. Three voting members were appointed to the SLPT, and all three also served on the Procurement Development Team. This dual role minimized overhead in transitioning between process phases and ensured consistency and efficiency throughout the duration of this procurement activity. Due to the qualifications of the voting members, the board was able to evaluate proposals with a minimum number of voting members. The SPEAC board worked cooperatively to produce all of the required RFP products, and because of the extensive experience of the board members with previous procurement activities, procurement products were of high quality, requiring very little revision throughout the review cycles, and the procurement development process was significantly streamlined. These high-quality products and the dedication of the voting team members allowed the board to meet the majority of its milestones ahead of schedule.

Kennedy Space Center

Base Operations and Spaceport Services

Team Members:

Gustavo B. Diaz
Kelly J. Boos
Lashanda M. Battle
Amy C. Canfield
M. Chris Davis
Andrew S. Dennis
Kristen P. Ender
Anthony R. Killiri
H. Grady McCoy
Jade R. Rymkos
Jennifer L. Tharpe

This award recognized the achievements of the Kennedy Space Center (KSC) Base Operations and Spaceport Services (BOSS) Team. The KSC BOSS acquisition is an 8-year, firm-fixed-price contract valued at \$609 million, with a period of performance consisting of a 2-year base period followed by three 2-year option periods. The contract provides for mission-focused institutional support at KSC and NASA facilities at Cape Canaveral Air Force Station, Florida. The BOSS contract is structured to provide a set amount of baseline work to fulfill certain known and defined baseline requirements as well as an IDIQ component to meet fluctuating requirements.

The BOSS contractor's duties include managing infrastructure and utilities at KSC as well as coordinating the use of various facilities by several institutional spaceport users, including NASA, the Air Force, private entities, and other contractors. These services include operations, maintenance, and engineering (OM&E) of assigned facilities, systems, equipment, and utilities (FSEU); work management and spaceport integration functions; mission support and launch readiness management; project management and design engineering services; construction support services; and institutional logistics.

The SEB's expertise and dedication were essential in ensuring that the BOSS acquisition strategy and contract requirements supported the following objectives: safe and reliable FSEU to support the multiuser spaceport, management of the integrated operations of KSC spaceport users, efficient and effective responses to the concurrent needs of multiple customers, and flexibility to changing programmatic requirements.



Team Members:

Erik Weiser

Benjamin Galke

Floyd Quintana

Clifford Williford

Daphne Darden

Morgan Whitefield

Dacia Bruns

Richard Cannella

Michael Garton

Cody Lichvar

Langley Research Center

Compressor Station Updates Phase 2—Source Evaluation Team

A 2011 study by the NASA Safety Center (NSC) recommended replacing all compressors and ancillary support systems at the Langley Research Center (LaRC) Compressor Station because they were well beyond their design life of 30 years and expected to continue to fail in an unpredictable manner. The Compressor Station provides high-pressure air for 23 research facilities supporting numerous LaRC and Agency missions. Due to the expense and complexity of updating the Compressor Station, LaRC developed a four-phase approach with a total cost estimated at \$59 million. LaRC initiated Phase 1 for the Design-Furnish-Install project in June 2015 to replace the first three compressors with a new compressor system. After issuing a sources-sought synopsis and determining that no small businesses were capable, LaRC awarded a Design-Build Task Order to contractor Jacobs Technologies, Inc., a large business, under its existing Center Maintenance, Operations, and Engineering (CMOE) contract. For Compressor Station Updates Phase 2 (CSUP2), LaRC altered its strategy for compressor replacement to a streamlined competitive Furnish-Install approach, using the Phase I compressor design, with the exception of updates necessary for the compressor to work at its designated location. This approach saved LaRC significant life-cycle cost and drove efficiencies in operations and maintenance.

In addition to the innovative and streamlined techniques addressed above, the Source Evaluation Team (SET) leveraged lessons learned from previous Price Performance Trade-off (PPTO) source selections to realize resource efficiencies throughout the



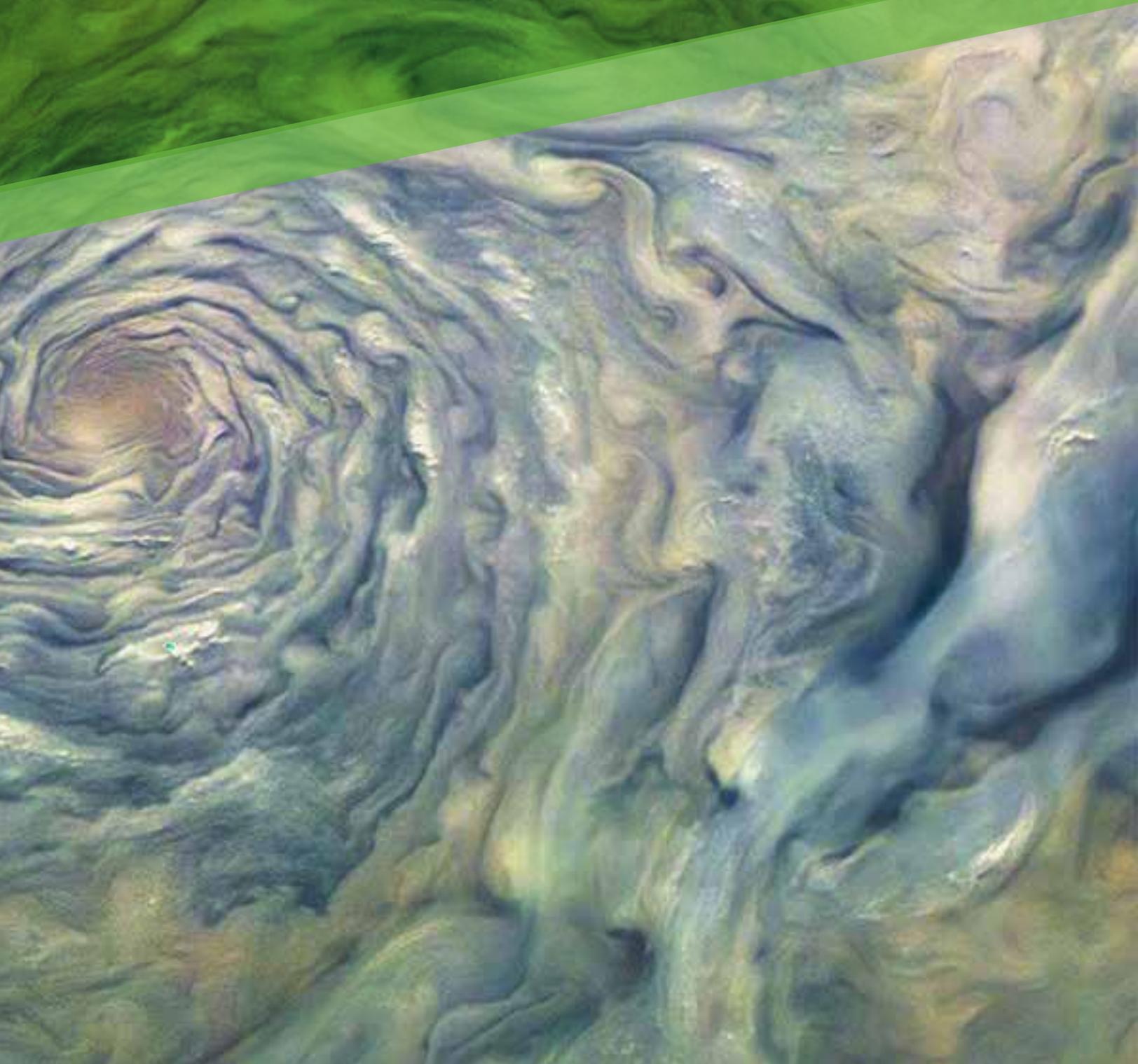
SET process. First, the structure and staffing of the SET optimized resources. The lean SET consisted of a chair and two other voting members. The contract specialist was a non-voting member, which allowed her to focus on RFP development and oversight of the SET's activities, enabling further efficiencies in the schedule. Secondly, the SET focused the past-performance content evaluation on key discriminators necessary to demonstrate capability to perform on CSUP2. These discriminators, together with the technical acceptability considerations, enabled the SET to comprehensively assess the capability of each offeror while avoiding a resource-intensive mission-suitability assessment.

The SET also streamlined the evaluation by restricting the number of proposals evaluated to the four lowest-priced, technically acceptable proposals. Utilizing these streamlined techniques enabled the SET to complete proposal evaluations in only 55 days and award 82 days from proposal receipt, 22 days ahead of the SET's aggressive schedule.



PROCURE

Deliver Exceptional Acquisition Business Solutions
and Results to Enable NASA Missions



Priorities and Initiatives

Procurement Portfolio Acquisition Model

- Continue development of enterprise procurement strategies to maximize interdependencies, reduce redundancies, increase productivity and proficiency, and incorporate Supply Chain Management Principles (e.g., Gateway Program Procurement Support Model; Institutional Product Support Lines).
- Assist and support Agency efforts to improve management of major acquisitions under Cross-Agency Priority (CAP) Goal 11 under the President's Management Agenda (PMA).

PMA CAP Goal 7 Category Management

- Increase utilization of Best-in-Class when appropriate for the requirement (e.g., expand the use of Solutions for Enterprise-Wide Procurement [SEWP]).
- Develop contract solutions with cross-agency and/or Government-wide contracting vehicles.

Reduce Procurement Lead Times

- Employ project management principles to the acquisition process to reduce length of procurement process.
- Increase the use of innovative procurement techniques (e.g., PPTO).

Reduce Redundant and Duplicative Contracts and Other Instruments

- Strengthen acquisition planning to ensure that the right contract vehicle is utilized for requirements.
- Establish partnership between the Source Selection Community of Practice and APPEL to develop online, just-in-time Source Selection team training.
- Establish Closeout Process Community of Practice (CFO and Center Procurement reps) to increase the timeliness of contract close-outs and reduce unliquidated obligations (ULO).

PROCUREMENT ACCOMPLISHMENTS

During FY19, OP conceptualized, designed, and implemented the Enterprise Service Delivery Model that embraces concepts of Category Management principles by actively managing spending and utilizing OMB-identified Best in Class Contracts (BICs) through the creation of Product Service Lines, with specific procurement assignments, for institutional and a subset of program/project (e.g., engineering, propellants) lines of business. The Enterprise Service Delivery Model will enable the Agency to reduce redundant and duplicative contracts through enhancing focus on strategic sourcing; leveraging buying power per category, thereby increasing efficiency and delivering more value and savings to the Agency; and enabling enterprise acquisition streamline techniques to reduce procurement lead times.

In addition, OP is in the process of establishing a new centralized Information Technology (IT) Procurement Office directed by a new Senior Executive Service Procurement Officer, hosted at Goddard Space Flight Center (GSFC), with an anticipated annual expense of \$1.5 billion. This includes an innovative concept of aligning the Agency's Solutions for Enterprise-Wide Procurement (SEWP) program office to the Office of Procurement, which provides IT contracts for the entire Federal Government. This Office will centralize the Agency's IT procurements to achieve consistency in IT requirements, solutions, and security; improve FITARA compliance; reduce duplication; and improve the Agency's IT buying power and expertise.

Orion

NASA's Orion spacecraft is built to take humans farther than they've ever gone before. Orion will serve as the exploration vehicle that will carry the crew to space, provide emergency abort capability, sustain the crew during space travel, and provide safe reentry from deep space return velocities. Orion will launch on NASA's new heavy-lift rocket, the Space Launch System (SLS).

NASA awarded the Orion Production and Operations Contract (OPOC) to Lockheed Martin of Littleton, Colorado. Spacecraft production for the Orion program, managed at NASA's Johnson Space Center in Houston, will focus on reusability and building a sustainable presence on the lunar surface. With this award, NASA is ordering three Orion spacecraft for Artemis missions 3 through 5 for \$2.7 billion. The Agency plans to order three additional Orion capsules in FY22 for Artemis missions 6 through 8, at a total of \$1.9 billion. Ordering the spacecraft in groups of three allows NASA to benefit from efficiencies that become available in the supply chain over time—efficiencies that optimize production and lower costs.

The first six spacecraft will be acquired by cost-plus-incentive-fee ordering. Because the cost of a complex, high-tech system generally decreases over time as the design stabilizes and production processes mature, NASA will negotiate firm-fixed-price orders for future missions to take advantage of the anticipated spacecraft production cost decreases. Furthermore, the cost incentives on the cost-plus-incentive-fee orders are designed to motivate favorable cost performance during early OPOC production and drive substantially lower prices for any subsequent firm-fixed-price orders issued under this contract.

Work under this contract also will support the production of NASA's lunar-orbiting Gateway and evolving mission

requirements. The production of certain spacecraft components already designed and qualified for Orion will be provided for Gateway use, eliminating the need for the Gateway Program to develop and qualify similar components.

Human Landing System

The Human Landing System (HLS) portion of the Artemis program will provide the lunar landing vehicle to return astronauts to the Moon. NASA Procurement successfully awarded 11 contracts under NextSTEP-2 (Next Space Technologies for Exploration Partnerships) Appendix E (Human Landing System Studies, Risk Reduction, Development, and Demonstration) Broad Agency Announcement (BAA). These contracts will enable special studies and prototypes for risk-reduction efforts for one or more of the following: ascent module, descent module, or transfer vehicle. The NextSTEP-2 BAA is a public-private partnership model that seeks commercial development of deep space exploration capabilities to support more extensive human space flight missions in and beyond cislunar space—the space near Earth that extends just beyond the Moon.

Following the March 26, 2019, announcement by Vice President Pence that charged NASA to send humans to the lunar South Pole by 2024, NASA assessed options to expedite the work and decided that it would be most expeditious to procure an integrated lander demonstration. The NextSTEP Appendix H (Human Landing System) draft solicitation was developed and released in less than 4 months, allowing for industry to comment and to improve NASA's lunar plans. The requirements are performance-based, meaning that they define the function and performance of the HLS but do not prescribe how to design, build, certify, or operate any particular HLS integrated lander capability. Offerors develop unique, innovative, and cost-effective HLS solutions that

achieve NASA's overarching objectives while meeting its required performance objectives. After several iterations of industry feedback, the final solicitation was released at the end of September, and proposals are currently in source selection. This acquisition approach has provided invaluable experience in close collaboration within the NASA procurement, programmatic, safety, and engineering communities for something of this magnitude to achieve expedited solicitation development that is much shorter than the typical process.

Commercial Lunar Payload Services

NASA has awarded contracts to several American companies to deliver science and technology to the lunar surface through the Commercial Lunar Payload Services (CLPS) initiative. Large and small businesses will compete to deliver payloads for NASA, including payload integration and operations, launching from Earth and landing on the surface of the Moon. Under the Artemis program, early commercial delivery missions will perform science experiments, test technologies, and demonstrate capabilities to help NASA explore the Moon and prepare for human missions.

Goddard Space Flight Center (GSFC) awarded the master CLPS contracts, and contract administration is being performed by Johnson Space Center (JSC). The CLPS contract includes an on-ramp clause that allows the original solicitation to remain open during the life of the contract so that, at any time, NASA may award additional contracts.

NASA anticipates the need for both small and mid-size lunar landers to achieve the goal of landing the first woman and next man on the Moon by 2024. This contributes to the first major step to return astronaut explorers to the Moon under Space Policy Directive-1 (SPD-1). The CLPS transport services will help NASA acquire real-world experience for piloted missions to the Moon's surface within the next decade. The CLPS On-Ramp 2019 supports NASA's goal to reach the Moon by 2024. The first two deliveries of NASA payloads to the Moon are targeted to launch in July 2021.



Space Launch System

NASA's Space Launch System, or SLS, is an advanced launch vehicle that provides the foundation for human exploration beyond Earth's orbit. With its unprecedented power and capabilities, SLS is the only rocket that can send Orion, astronauts, and large cargo to the Moon or beyond on a single mission. Offering more payload mass, volume capability, and energy to speed missions through space than any current launch vehicle, SLS is designed to be flexible and evolvable and will open new possibilities for payloads, including robotic scientific missions to places like the Moon, Mars, Saturn, and Jupiter. SLS is composed of multiple components from various suppliers. Every SLS configuration uses a core stage with four RS-25 engines and twin five-segment boosters (Space Shuttle-derived solid rocket boosters). NASA's SLS evolution is planned in three blocks:

- Block 1 can send more than 26 metric tons (t) or 57,000 pounds (lb) to orbits beyond the Moon.
- Block 1B will use a new, more powerful Exploration Upper Stage (EUS) to enable more ambitious missions.
- Block 2 will provide 11.9 million pounds (lb) of thrust and will be the workhorse vehicle for sending cargo to the Moon, Mars, and other deep space destinations.

Under the current manifest, the first three Artemis missions will use a Block 1 rocket with an Interim Cryogenic Propulsion Stage (ICPS). After reaching space, the ICPS will send Orion on to the Moon. As scheduled under the current manifest, Block 1B with the Exploration Upper Stage (EUS) will replace the ICPS on the fourth flight of the Space Launch System. Block 2's intended change

is on the ninth flight, where it will use two advanced boosters. During this year, the SLS program accomplished the following for its major components:

SLS Stages include the massive SLS Core Stage, which will store super-cooled liquid hydrogen and liquid oxygen to power the RS-25 engines, as well as development of the Exploration Upper Stage (EUS). NASA Procurement has successfully negotiated a complete restructuring of the SLS Stages Contract, including the delivery of Core Stage 1 (CS1) (planned for the Artemis 1 Mission); CS2 (scheduled to be used for Artemis 2 Mission); and Exploration Upper Stage 1 (EUS1) (planned for Artemis 4 Mission) as well as 24/7 Green Run Testing Support for CS1. The Green Run Testing will be the first full test of all the Core Stage 1 hardware, including the integrated RS-25 engines. This test will simulate the first 8 minutes of flight. This restructured contract segregates the flight articles into separate Contract Line Item Numbers (CLINs), providing for a new contract cost baseline that will improve reporting of both Earned Value Management and NASA Form 533 "Monthly/Quarterly Contractor Financial Management Report." The negotiation results also assure that Boeing will not realize any fee for a \$1.8 billion contract cost overrun and restructured the award fee to include milestone incentives. The acquisition workforce will benefit from this detailed contract structure that can be used to better track design, development, test, and evaluation costs from Core Stage 1 and 2 and segregate the costs for EUS.

NASA Procurement also awarded the follow-on Stages Production and Evolution Contract (SPEC) on October 16, 2019. This letter contract authorized Boeing to begin SLS Core Stage 3 production and to order materials for Core Stages 3–12 (planned for Artemis 3–13) and will allow for materials for Exploration Upper Stages (EUS) 2–9 (planned for Artemis 5–12). Core Stages and EUSs

are included on SPEC as individual CLINs which will be procured via delivery orders. The delivery orders can be Cost-Plus-Award-Fee, Cost-Plus-Incentive-Fee, Fixed-Price-Incentive-Fee, or Firm-Fixed-Price, which allow NASA to lower its risk posture as the program matures. Boeing can establish a long-term supplier base that has the potential to lower overall material cost, while NASA's risk is mitigated in that Boeing cannot exceed the amounts established against each delivery order. The acquisition workforce will benefit from a nimble contract structure that is able to transfer risk from NASA to the contractor as the program matures. Furthermore, a supplier management plan was added as a contract deliverable to facilitate insight into the materials supply chain and will help ensure that critical parts and supplies are identified early and available when needed, providing the acquisition workforce with greater visibility into the suppliers than had previously been available to NASA.

Propulsion for each SLS Core Stage is provided by four RS-25 engines. NASA Procurement, on November 19, 2018, issued the Request for Proposal (RFP) for an additional production of 18 RS-25 Core Stage engines, which, when combined with other engines previously procured, are planned to be used on Artemis Missions 5–10. The new 18-engine purchase will take advantage of cost reductions currently achieved from the comprehensive engine redesign to improve affordability and production time through the incorporation of modernized manufacturing, elimination of obsolete processes, and material lot-buy savings. Because of knowledge gained during the execution of the current RS-25 engines contract, NASA became aware of significant supplier issues associated with the restart of this production line and an increase in nickel use, which is used in the engines' production. With the knowledge of this increased risk, NASA was able to structure the contract line item for the additional 18 engines in a manner that will enable NASA to monitor

the costs and provide areas of emphasis that will aid in guiding the contractor to seek the maximum cost benefit for NASA, without sacrificing schedule, to ensure that a cost target is reached. The acquisition workforce benefits from economies of scale with a single lot-buy and a contract incentive structure to assure that both NASA's schedule and costs goals can be accomplished.

Two Shuttle-derived solid rocket boosters provide additional power for each SLS launch. NASA Procurement issued the RFP for the SLS Booster Production and Operations Contract (BPOC) on August 26, 2019. This contract will produce heritage steel-case boosters for SLS flight sets 4–8 (Artemis 4–8) and continue developing an evolved booster for Artemis 9. The CLIN structure of BPOC provides traceability of costs to each flight set and procures the Flight Set 4–8 boosters on a fixed-price-incentive-fee (FPIF) basis for the first time. The maturity of the SLS booster allowed for a more stringent contracting type under the BPOC contract than had previously been used, transferring risk from the Government to the contractor. The benefit to the acquisition workforce is less contract oversight for the current boosters while still allowing additional insight on the development of the evolved booster.

Gateway

NASA is working with its partners to design and develop a small spaceship, called Gateway, that will orbit the Moon. This spaceship will be a temporary home and office for astronauts, about a 5-day, 250,000-mile commute from Earth. Gateway will have living quarters, laboratories for science and research, docking ports (like doors) for visiting spacecraft, and more. It will provide NASA and its partners with access to more of the lunar surface than ever before, supporting both human and robotic missions. Gateway will be our home base for astronaut

expeditions to the Moon and future human missions to Mars. Even before the first trip to Mars, astronauts will use Gateway to train for life far away from Earth, and we will use it to practice moving a spaceship in different orbits in deep space. During the past year, NASA OP has supported the Gateway project through several efforts. NASA OP awarded a contract in May of 2019 for the Power and Propulsion Element (PPE) to Maxmar. The PPE is a high-power, 50-kilowatt solar-electric-propulsion spacecraft—three times more powerful than current capabilities. As a mobile command and service module, Gateway provides a communications relay for human and robotic expeditions to the lunar surface, starting at the Moon's South Pole. NASA OP issued a Justification for Other Than Full and Open Competition (JOFOC) for the Habitation and Logistic Outpost (HALO), which was awarded to Northrop Grumman Information Systems (NGIS). HALO will serve as a cargo module, carrying a metric ton of cargo needed for the 2024 lunar landing mission and other purposes. Finally, a Request for Proposal (RFP) was released for the Gateway Logistics Services (GLS). GLS will provide the transport of pressurized and unpressurized cargo to the lunar Gateway, as well as disposal of cargo from Gateway.

International Space Station Commercialization

In April 2019, the Office of Procurement, together with representatives from the Human Exploration and Operations Mission Directorate, the International Space Station Program Office, and Johnson Space Center, participated in an acquisition planning workshop to develop procurement strategies for highly complex and unique NASA commercial low-Earth orbit (LEO) efforts. The goal of the commercial LEO efforts is to transition from the current International Space Station (ISS) model, which relies heavily on NASA sponsorship, to an industry-

led enterprise where NASA is one of many customers of a long-term, sustainable commercial space marketplace. The resulting new and innovative market areas could include in-space tourism and accommodations for private citizens, manufacturing in space, entertainment (e.g., films, documentaries, sporting events), etc. In the short term, NASA has established commercial prices for corporate use of Government resources aboard the ISS. The revenue generated from these commercial and marketing activities will reduce NASA's ISS operating costs. In the long term, it is envisioned that nurturing the commercial space market will enable the future purchase of services from commercially owned and operated destinations in LEO, resulting in a more robust and cost-effective approach to NASA's human space activities that will free up the budget for Moon and Mars exploration. Accordingly, there are currently multiple NASA procurement efforts underway intended to encourage increased commercial use of the ISS and/or facilitate industry development and demonstration of a commercial destination(s) to eventually succeed the ISS. One such acquisition, Commercial Destination Development in LEO using the ISS Port (CDDISS), aims at entering into a public-private partnership, under which the selectee(s) will develop and demonstrate a habitable commercial element(s) that would attach to the ISS Node 2 Forward Port. Another effort, Commercial Destination Development in LEO Free Flyer (CDDFF), seeks a free-flying, permanently human-occupied or human-tended non-governmental platform, in LEO.

Low Boom

The \$247.5 million Low Boom Flight Demonstration (Lbfd) contract was awarded by NASA Armstrong Flight Research Center (AFRC) on March 28, 2018, to Lockheed Martin for the design, building, and testing of a supersonic aircraft. The experimental aircraft, designated

the X-59, will cruise at 55,000 feet at a speed of \geq Mach 1.4 and create minimal sound instead of a sonic boom. The project completed the Critical Design Review in September 2019 and passed Key Decision Point D in December. The X-59 is currently being assembled at Lockheed's factory in Palmdale, California, and is anticipated to fly for the first time in 2021. Beginning in mid-2022, NASA will fly the X-59 over select American cities and collect data about community responses to the flights. This dataset will be provided to American and international regulators for their use in considering new sound-based rules regarding supersonic flight over land, which could enable new commercial cargo and passenger markets in faster-than-sound air travel. AFRC OP continues to be heavily engaged with the LBFD project to include assisting with the removal of barriers to performance where possible and exercising

proper stewardship over taxpayer dollars by monitoring Lockheed's cost and performance, in accordance with the contract's incentive fee plan, to ensure commensurate adjustments to the fee.

Category Management

Category Management is the business practice of buying common goods and services as an enterprise to eliminate redundancies, increase efficiency, and deliver more value and savings from the Government's acquisition programs. Annually, the Office of Management and Budget (OMB) sets Agency-specific goals for the Category Management key performance indicators (KPIs) of Spend Under Management (SUM) and Best-in-Class (BIC), which are based on the Government-wide KPI goals set by the President's Management

FY19 Category Management Performance

Spend Under Management



BIC Obligation



In 2019, NASA OP exceeded the goal set for SUM and achieved 99.6 percent of the BIC goal, which was a marked improvement in both areas over the prior years' performance.

Agenda. SUM is the percentage of an agency's spending obligated on agency or Government-wide contracts. The BIC metric is a measure of an agency's spending obligated on BIC contracts. BIC refers to contracts available for use Government-wide that have been vetted by solution owners, agency users, and subject matter experts, resulting in a designation as Best-in-Class by OMB. There are currently 30-plus active BICs, including the NASA Solutions for Enterprise-Wide Procurement (SEWP) contract. In 2019, NASA OP exceeded the goal set for SUM and achieved 99.6 percent of the BIC

goal—a marked improvement in both areas over prior years' performance. Use of Government-wide and BIC solutions save agencies money and support small business utilization, all while reducing duplicate contracts and streamlining the acquisition process, making it possible for agencies to focus more resources on high-priority mission work. NASA Procurement Officers (POs) and Deputy POs received training on category management at the June Procurement Leadership Meeting held at Ames Research Center.

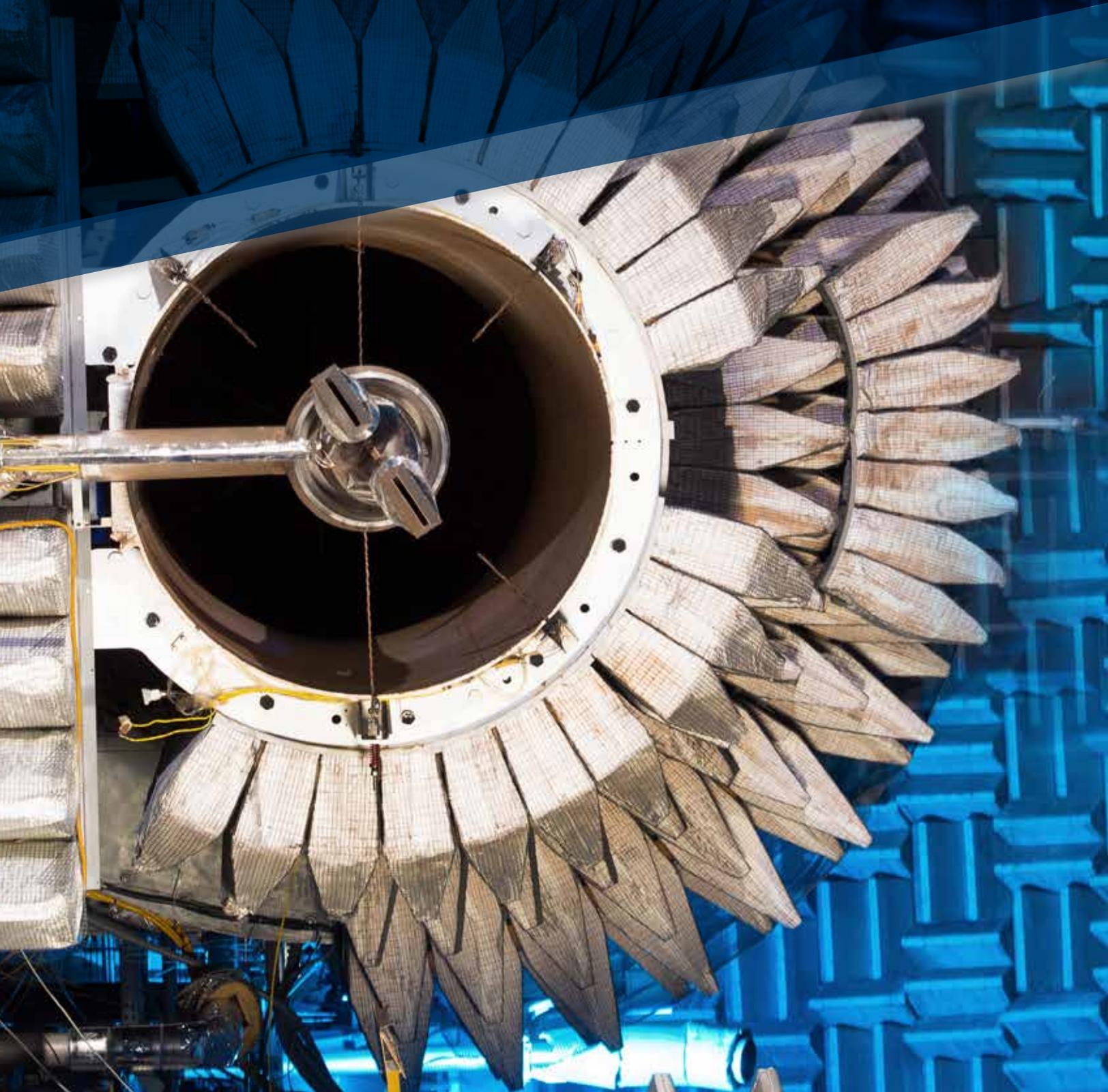


Director of the Procurement Management and Policy Division, Julia B. Wise:

“Transformational change is hard, but it is meant to shift the culture of an organization, and you have been an integral part of this change and instrumental in making the changes a reality. Your active role in transforming the Office of Procurement (OP) policies, processes, and procurement practices has been pivotal and a key to our success. You are establishing enterprise solutions, standardizing procurement policies and practices, and transitioning to the Federal Acquisition Institute Training Application System (FAITAS)—and your work leading and participating in these efforts has been phenomenal! Thank you for being engaged and supporting OP’s transformational activities.”

PROCESS

Develop Sound and Flexible Procurement Processes
That Integrate the Acquisition Workforce



Priorities and Initiatives

- Establish an Enterprise Procurement Knowledge Management Portal that provides a single repository for procurement information and collaboration.
- Standardize procurement procedures and focus on delivering a common procurement experience (internal and external).
- Enhance utilization of enterprise information technology resources (e.g., Virtual Source Selection Tool, Knowledge Bank).
- Establish a standard set of performance metrics that satisfy NASA Procurement's need to collect, analyze, and report key procurement data and metrics.
- Establish Automated Enterprise Performance Management Metrics that measure the health and success of the Procurement organization.
- Improve the functionality of the Procurement for Public Sector (PPS) contract writing system.

PROCESS ACCOMPLISHMENTS

The Office of Procurement is in the process of creating the Enterprise Electronic Dashboard, a highly collaborative effort with OP, OSBP, CIO, and NSSC, resulting in the creation of a tool that readily displays integrated Key Performance Indicators (KPI) for OP and OSBP, enhancing performance monitoring and reducing duplication. Initial operational deployment is planned for Phase 1 in the second quarter of FY20.

OP implemented a new Enterprise Governance Model to include the Procurement Leadership Committee (PLC), Workforce Strategy Committee (WSC), Procurement Control Board (PCB), and Capability Groups (e.g., Source Selection, Pricing, Contract Closeout, Training, and IT).

This governance model will enable strategic and efficient decision-making across the enterprise, promote a nationalized workforce that enhances career development, and streamline and standardize procurement policy with the intent of reducing procurement lead times, while sharing lessons learned and best practices.

Governance Bodies

Governance encompasses the processes by which organizations are directed, controlled, and held to account. It includes the authority, accountability, leadership, direction, and control as we transition from a decentralized operating model within the Office of Procurement to an enterprise model. Governance is led by the Procurement

Leadership Committee (PLC). Prior to the October 1, 2019, transition of the Office of Procurement to the enterprise structure, the AA, Executive Leadership, and the Center Procurement Officers held monthly telecons and quarterly face-to-face meetings. The PLC formally named this body and created a charter that set forth roles and responsibilities and identified subordinate governance-related bodies within the Office of Procurement Enterprise that are discussed herein.

The PLC, whose chair is the AA for Procurement, serves as the governance and decision-making body within NASA for decisions that affect the procurement enterprise and/or multiple procurement locations that may include, but are not limited to, procurement assignments; budget priorities; strategic workforce actions and/or allocation of resources (e.g., strategic hiring, fulfillment for training and certification requirements of direct hires); and standardized policies or practices regarding employee work-life balance (e.g., telework, alternate work schedules).

Governance is a system and process—not a single activity—and, therefore, successful implementation of a good governance strategy requires a systematic approach that incorporates strategic planning, risk management, and performance management at multiple levels.

The OP approach to governance is depicted in the chart below:

Governance Integration Approach



Monthly: All groups report out to the Procurement Leadership Committee at the PLC Telecon (snapshot)

Quarterly: All groups provide a Quarterly Performance Review at the PLM



Yellow arrows represent anticipated high integration



Green Arrow represents Governing bodies executing within the autonomy and authority from the PLC

The Workforce Strategy Committee (WSC) is a newly formed and chartered body that will support the Procurement Leadership Committee by performing deep

dives and research regarding the procurement enterprise workforce and providing counsel and recommendations to the PLC.

Key FY19 highlights from the governance groups are outlined below:

Source Selection Capability Group: This group seeks to improve the effectiveness and efficiency in the source selection process by providing expert guidance for source selection activities, reviewing and advising on source selection policy, sharing source selection best practices and lessons learned with the OP community, and maintaining standard templates and training for all source selections.

Twenty-seven source selections occurred this year across the Agency that utilized processes developed at each Center over the years. The group created a template for Section L&M Cost Type Procurements over \$50 million that will begin the standardization of source selection processes across the Agency.

Pricing Capability Group: This group is responsible for providing expert guidance for pricing activities across all NASA Centers, maintaining standard templates and training for all pricing actions, sharing source selection lessons learned and best practices, plus reviewing and advising on pricing policy and providing cross utilization of resources across NASA Centers.

In 2019, the group was fully engaged in a cost/price analysis improvement plan that involves creating standard Agency-level templates for pricing reports, a combined Pre-negotiation Position Memo (PPM)/Price Negotiation Memo (PNM), and standard contract language for competitive RFPs.

Another key initiative of the group is peer review, a three-step process occurring at various points within selected complex, high-dollar, sole-source acquisitions that leverage cost/price analysis expertise from across the Agency. During reviews, the acquisition team's cost/price analysis approach and negotiation strategy are assessed to ensure that a thorough analysis is accomplished to support a fair and reasonable price.

In addition, the group actively coordinated the sharing of cost/price analysis resources for acquisitions occurring across the Agency. Examples include:

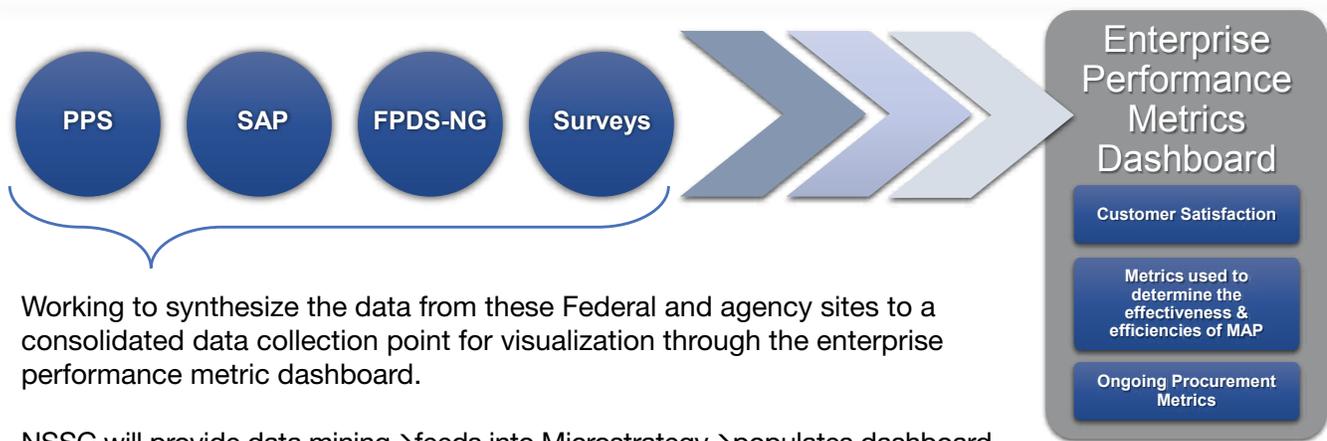
1. *Low Boom Flight Demonstration Vehicle*—CPIF new competitive action: Langley supported Armstrong
2. *Federally Funded Research and Development Center (California Institute of Technology [Caltech])/Jet Propulsion Laboratory [JPL]*—CPFF sole-source follow-on action: Johnson, Glenn, Goddard, and Marshall supported the NASA Management Office
3. *Space Launch System*—Sole-source follow-on action: Johnson supported Marshall
4. *Space Flight Demonstration of a Power and Propulsion Element*—FFP
5. *Research and Development (R&D) new competitive action*—Headquarters Office of Procurement supporting Glenn

The Information Technology Capability Group: The Information Technology (IT) Capability group is newly formed and merges the former Center Business Process Leads and MAP IT Working Group members to form a cohesive body to focus on the Office of Procurement’s IT infrastructure and capability. This group is charged with developing strategic crosscutting solutions for the Enterprise IT needs of the future as well as leading improvements to the NASA Contracting Writing System and other existing systems required by the Procurement workforce to operate effectively and efficiently.

During the past year, the IT Capability Group leveraged strong collaborative ties with the Office of the Chief Information Officer (OCIO) and participated in three separate OCIO-led workshops to define IT requirements for the

Office of Procurement and other Mission Support Directorate functional offices to develop crosscutting approaches to meeting the myriad IT requirements for the offices. The IT Capability Group will lead OP in leveraging existing information technology systems while using the existing Procurement Application Portfolio Management Board (P-APMB) structure to promote, prioritize, and integrate future information technology solutions.

Additionally, the team is continuing the Enterprise Metrics Dashboard development effort started in early FY19. The Dashboard centralizes all data input at the NASA Shared Services Center (NSSC) in separate systems and will allow for metric accessibility in one place on the dashboard as shown below. The rollout is planned for the second quarter of FY20.



Contract Closeout Capability Group:

Similar to the IT Capability Group, the Closeout Capability Group was formed to ensure that a cohesive approach to closeout processes and procedures is being used across the Agency instead of a Center-by-Center approach. This group made strides in creating an enterprise framework that provides oversight to the contract closeout process and

creates innovations and improvements related to contract closeout policy, procedures, and metrics across the procurement organization. This effort has a significant impact on the Agency by reducing the footprint of the number of overaged contracts, unliquidated obligations, and the amount of funds given back to the U.S. Treasury each year.

In FY19, the Closeout Capability Group

- developed the Contract Closeout Guidebook, which will be released in early 2020;
- developed Enterprise Contract Closeout Metrics for consistent tracking of closeout status;
- developed NASA's Audit Services Operating Model to standardize processes when NASA is the cognizant Federal Agency; and
- oversaw the transition efforts from the incumbent Contract Closeout Contractor to the new contractor and initiated NASA's migration to centralized contract closeout effort.

Procurement Control Board: The Procurement Control Board (PCB) was formed in late FY19 and is chaired by the Deputy Associate Administrator for Procurement. The PCB serves as the governance and decision-making body within the NASA Office of Procurement to approve standardized operational procurement policies and/or processes to be implemented enterprise-wide (e.g., templates/guides/processes that the Buying Offices uses for daily operations) as well as Agency-wide or regulatory procurement policy. The PCB was initiated in 2019 as a demonstration project during the Office of Procurement's MAP process. Approval to proceed to full implementation was granted when the NASA Mission Support Council approved OP's transition to an enterprise (at MAP KDP-C).

During 2019, the PCB approved the establishment of four enterprise-wide templates for the following subject areas: justifications for other than full and open competition; 5-year contract period of performance deviation; use of award-fee incentive determination and finding (D&F); and single-award IDIQ D&F—whereas in the past, there were 48 templates across the Agency for these subject areas.

Training Capability Group: This group and the Acquisition Career Manager ensure that NASA's acquisition workforce is on-boarded successfully and that the training program meets the requirements of OFPP Policy Letter 05-01, "Developing and Managing the Acquisition Workforce." The main focus of the group is to

1. review the training requirements and certification programs for NASA's acquisition workforce, including Contracting Officers, Contract Specialists, Contracting Officer Representatives, Program Managers, and Project Managers;
2. ensure that the workforce is appropriately trained and certified to support NASA's procurements and programs; and
3. research innovative solutions to improve the NASA Acquisition Training Program.

Highlights of accomplishments for the Training Capability Group are captured in the Acquisition Workforce section of the document.

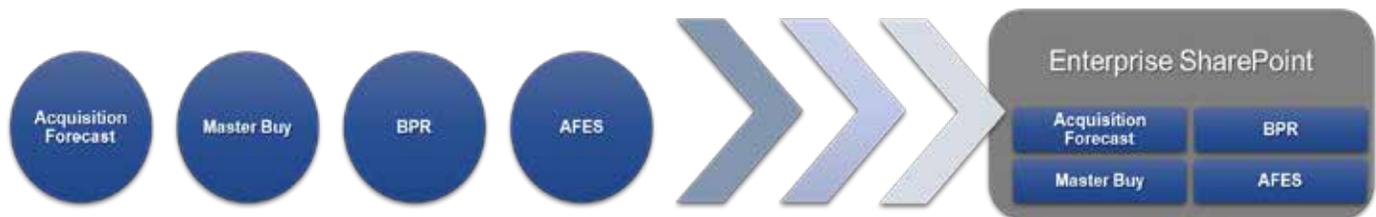
IT Efforts

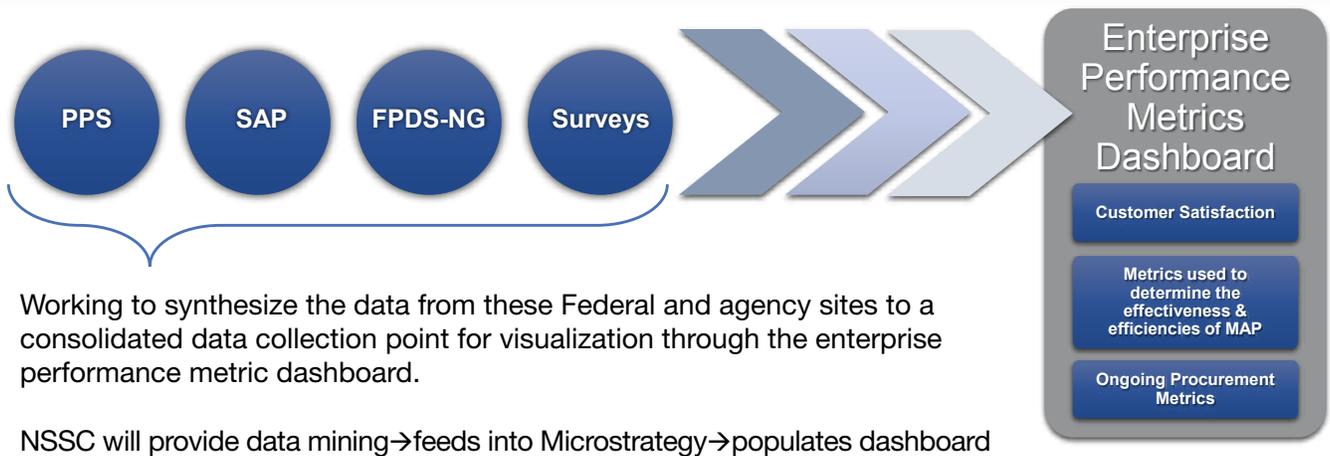
The Office of Procurement has partnered with OCIO, along with other functional organizations, to develop a strategic crosscutting solution for their IT needs of the future. Supporting this effort, OP has established the IT Capability Group. This group, made up of individuals from the Office of Procurement, will oversee and lead improvements to the NASA Contracting Writing System and other Agency Applications Office (AAO)-maintained, IT-utilized systems to efficiently perform the procurement function. In addition, this capability group will support implemented IT sites and related infrastructure.

Over the course of 2019, representatives from the capability group participated in three separate OCIO-led workshops to define IT requirements for all Mission Support Directorate (MSD) functional offices and then develop crosscutting approaches to meet those requirements. OP will leverage existing information technology systems while using the existing Procurement Application Portfolio Management Board (P-APMB) structure to promote, prioritize, and integrate the future information technology solution within the existing procurement environment.

The capability group is engaged with the OCIO collaboration lead regarding requirements and how they are met through the enterprise roadmap. As the collaboration roadmap continues to be refined, the capability group will continue to assess our IT posture for rationalization opportunities. During the period between KDP-B and KDP-C, the capability group conducted several demonstrations to evaluate different capabilities as well as to test existing capabilities.

The capability group will support the rollout of an enterprise approach to data collection/dissemination, a virtual SEB tool, and a Metrics Dashboard that will readily provide data for assessing performance and managing people. Currently, OP collects data from various systems and downloads them into various reports that get distributed via email. The end goal is to streamline information that is collected based on changing needs of the organization, simplify reporting, and eliminate redundancy in data entry. OP will utilize enterprise IT roadmap tools for its data collection platform. A depiction of the transformation is presented below:





The Metrics dashboard has already been demonstrated by the NSSC covering performance metrics for the enterprise. The plan is to centralize all data input at the NSSC and have all metrics presented by the dashboard with a rollout planned for the beginning of FY20. A depiction of the transformation is identified above.

In the future, the priority will be to minimize manual data collection by using existing data sources to the maximum extent possible. For information that is not captured in a system, a portal for data entry is being developed to ensure consistency and to simplify the data collection process. This will be accomplished by centralizing and standardizing procurement metrics, leveraging NSSC's data-mining capability, developing a portal for enter-

ing information, and creating a dashboard to display information.

The completion of these demonstration projects marked a significant step forward toward the implementation of the Enterprise Metrics Dashboard. These demonstrations provided a proof of concept that is scalable to include the entire dataset necessary to build the metrics to fully populate the planned Enterprise Metrics Dashboard. For the first time, the Office of Procurement will have a consolidated set of Key Performance Indicators that will show a detailed snapshot of health and performance of the Office of Procurement not only at the enterprise level but at the buying location and office level.

The following transformative projects were implemented:

- NSSC demonstrated the ability to pull people and procurement data using BOTS (software application that runs automated tasks or scripts).
- HQ's OCIO/OP demonstrated that it can accept the NSSC data in the provided format.
- HQ's OCIO/OP demonstrated that it can display procurement and people metrics in a web-based dashboard format with the ability to view graphically and in table format (completed March 2019).

- NSSC will demonstrate the ability to pull a full suite of system data, and the HQ's OCIO will accept and display the data utilizing the 4 P's in a tiered approach (first quarter FY20).
- HQ will continue to expand its dashboard to address metrics related to the 4 P's and small business (fourth quarter FY19 and beyond).
- OP will continue to assess types of information required that do not currently exist in the system and develop approaches to collect and disseminate the data (first quarter FY20).

The year 2019 has also seen the continued transformation of the OP web presence. The public-facing www.nasa.gov website has continued to undergo a transformation as MAP activities have reshaped the OP and how we operate under an Agency-wide enterprise umbrella. In December 2019, the OP relocated the internal OP site to its growing SharePoint environment. The relocation brings the internal site to a more stable environment with greater flexibility and performance. The OP has also begun to scale back the NASA Acquisition Internet Service (NAIS) website. In addition to eliminating duplicate content already contained on the www.nasa.gov website, removing the NAIS external sites helped to reduce potential security vulnerabilities as well as maintenance costs.



**Project Manager, Mission Support Future Architecture
Program (MAP), Office of Procurement (OP), and Office of Small Business
Programs (OSBP), Marvin L. Horne:**

“With the tremendous support from the procurement workforce, the Office of Procurement designed and implemented an enterprise organization and service delivery model enabling mission success.”

POLICIES

Deliver Procurement Policy that is Required,
Clear, and Easily Implemented



Priorities and Initiatives

Reduce or remove unnecessary/outdated/burdensome policy requirements that have outlived their intended purpose:

- Utilize the Quality Review Process to review and update all NASA FAR Supplement (NFS) parts
- Establish subject matter expert working groups from across the Agency to reduce, standardize, and integrate Agency- and Center-level procurement policies, processes, and templates

Standardize procurement policy that is clear, required, and easily implemented and enables the Enterprise Delivery Model

- New NFS Guidance on Counterfeit Parts (Authorization Act requirement)
- Updated NFS Award Fee Policy

Monitor the effectiveness of procurement guidance to improve compliance, oversight, contractor performance, and Agency procurement risk:

- Risk-based procurement management reviews
- Partnering with the Chief Acquisition Officers Council and the CFO to explore legislative pathways to reduce meritless protests
- Establish process for identifying issues, trends, and drivers for bid protests and GAO/IG audits and develop systematic approaches to reduce reoccurrence and minimize impact

POLICY ACCOMPLISHMENTS

Overview of Policy (FAR and NFS Policy): NASA is a member of the Federal Acquisition Regulatory Council and signatory to the Federal Acquisition Regulation (FAR). In this role, NASA provides direction, guidance, and coordination of Government-wide procurement policy and regulation in the Federal Government. NASA serves as a member of the Civilian Agency Acquisition Council (CAAC) and serves as a subject matter expert on the six FAR Teams: environmental and contract management, finance, law, small business, strategy, and technology. In FY19, the FAR Council published 22 rules in the Federal Register. These rules were established and incorporated into the FAR to improve Government contracting practices and guidance and to remove duplicative, outdated, and burdensome contracting regulations. Some key rules included Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment (2018-017), Credit for Lower Tier Small Business Subcontracting (2018-003), and Use of Products and Services of Kaspersky Lab (2018-010).

The NASA FAR Supplement (NFS) provides specific, current, accurate, and complete guidance to NASA's acquisition workforce. The NFS is updated regularly and revised to implement policy and legislative changes and to remove unnecessary and unclear text. In FY19, 17 NFS changes were published. The most notable changes included revisions to the NASA Award Fee Contracting Guide, Award Fee Process Enhancements, and revisions to the contents of the Written Acquisition Plan. Additionally, in FY19 the Office of Procurement conducted NFS Policy Quality Reviews (QRs) on 14 NFS parts with minimal changes, such as updating websites, changing names, revising citations, and removing obsolete or duplicative information as required to ensure that the acquisition workforce has access to current, accurate, and complete policy guidance. In FY20, we expect to conduct QRs on approximately 15 NFS Parts.



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