National Aeronautics and
Space Administration

THE ANNUAL STATE OF NASA

PROCUREMENT REPORT

FISCAL YEAR 2023 | YEAR IN REVIEW

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PACE (Plankton, Aerosol, Cloud, ocean Ecosystem) shown above Earth. PACE will extend and improve upon NASA's 20-plus years of global satellite observations of our living ocean, atmospheric aerosols, and clouds.

Photo credit: NASA / Kim Shiflett

Welcome

Welcome to the second issue of the Annual State of NASA Procurement Report!

Fiscal Year 2023 (FY23) was a monumental and transformative year for the NASA Office of Procurement (OP). FY23 was a steppingstone on our continuous process improvement journey.

Our FY23 report offers an in-depth view of NASA's procurement activity, milestones, and achievements. The dedication and professionalism of the acquisition workforce enable NASA to continue creating better acquisition outcomes.

In FY23, OP began a series of transformation initiatives, including the unveiling of our acquisition innovation laboratory, the NASA Acquisition Innovation Launchpad (NAIL), intended to accelerate innovation in workforce (people), procurement, policy, processes, and program management. With respect to acquisition strategy, the Request for Proposal for the United States Deorbiting Vehicle (USDV) signifies a strategic shift toward more flexible, value-added contract structures. Successful selection of a solution to provide a robust end-to-end contract and grants writing system, replacing our current legacy system, at the end of FY23 was the first step towards a completely modernized business system for the Agency.

OP played a key role in FY23 to successfully execute the largest budget in NASA history. Together with other key stakeholders, NASA obligated over $22 billion and executed over 34,000 procurement and assistance actions. OP skillfully executed an agency-level category management strategy resulting in over $7.8B in Spend Under Management (SUM), a $1B increase as compared to FY22, exceeding our agency goal of 88% for SUM. NASA further increased Best-in-Class (BIC) obligations from $198.9M to $267.3M, a 34.4% increase!

As I reflect on the Office of Procurement's greatest successes from the past fiscal year, I am inspired by the collaboration with our industry partners to lay the groundwork towards successful execution of all procurement/acquisition elements of the Moon to Mars architecture/strategy.

Looking ahead to FY24, I am confident that collaboration with industry will continue to be fruitful and lead us toward leading-edge accomplishments. I expect the Office of Procurement to lead the way with respect to business operations and strategy execution as we work together towards NASA 2040, building the future together!

Thank you to the entire NASA community for your support and I look forward to continuing to deliver acquisition excellence for better acquisition outcomes!

Sincerely,

Karla Smith Jackson

Senior Procurement Executive, Deputy Chief Acquisition Officer,
and Assistant Administrator of Procurement

The Soyuz MS-23 crew ship is pictured docked to the Prichal docking module as the International Space Station orbited 264 miles above Queensland, Australia, near the coast of the Gulf of Carpentaria.

Photo credit: NASA / ISC

Acknowledgements

We express our deepest gratitude to the remarkable individuals who have contributed their time, knowledge, and expertise to bring this annual report to life. This publication stands as a testament to the incredible acquisition accomplishments and contributions that have propelled the Agency's mission forward throughout the fiscal year.

We extend our sincere appreciation to the dedicated team members from each NASA Center who have shared their accomplishments, insights, and innovative best practices, which have undoubtedly enriched both this publication and our collective understanding of the federal government's procurement landscape.

To our editors, proofreaders, and designers who have diligently worked to ensure the report's clarity, accuracy, and visual appeal, we are immensely grateful for your unwavering commitment to excellence. Furthermore, we would like to acknowledge the leadership and support of our OP colleagues and NASA executives who have guided us in our pursuit of excellence, fostering a culture of collaboration, innovation, and continuous improvement.

Lastly, we express our heartfelt thanks to every member of the enterprise procurement workforce who has played a part in achieving the milestones and successes documented within these pages. Your dedication, hard work, and passion for NASA's mission are truly inspiring. It is an honor to share this journey with each one of you, and we look forward to continued growth, success, and innovation in the years to come.

With our warmest regards and deepest gratitude,
The FY2023 State of NASA Annual Procurement Report Team

Psyche Launch.

Photo credit: NASA / Kevin Davis & Kevin O'Conne

Overview & Background

Overview

The NASA 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.

Purpose of the Publication

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

Mission Statement

Explore and Execute Innovative, Effective, and Efficient Acquisition Business Solutions to Optimize Capabilities and Operations That Enable NASA's Missions.

Vision Statement

The vision of the Office of Procurement is to explore and execute innovative, effective, and efficient acquisition business solutions to optimize capabilities and operations that enable NASA's missions.

Background

The Four Ps

The Office of Procurement continued with the implementation of our transformation efforts approved under the Mission Support Future Architecture Program (MAP) in 2019 by moving forward with the realignment of the organization from a decentralized operating model to an enterprise operating model focusing on four key areas known as the Four Ps: People (roles and responsibilities), Procure, Process, and Policies.

This strategic approach to operations established a nationalized procurement workforce that will continue to reduce procurement lead times and standardize policies, procedures, processes, and information technology platforms, which will increase productivity and proficiencies and establish a common user experience.

While the Office of Procurement continued to make significant progress with our transformation efforts, the organization pivoted to the next logical step in our transformation efforts— performance reporting. Performance-level reporting is an increasingly important mechanism for monitoring the success of our new service delivery model.

In this vein, the Office of Procurement developed and ultimately received Agency approval of our new Baseline Performance Measures that represented clear, measurable baseline commitments as follows:

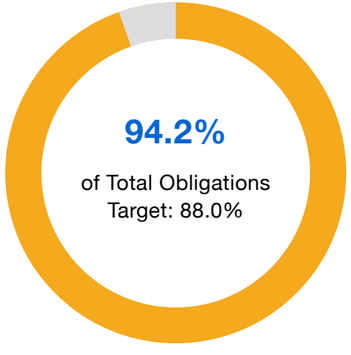
- **Procurement Administrative Lead Time (PALT):** Reduce PALT.
- **Undefinitized Contract Actions (UCAs):** Reduce overage UCAs (>180 days).
- **Contract Closeout:** Reduce backlog Contract Closeout inventory.
- **Category Management:** Increase utilization of Spend Under Management (SUM) and Federal Best-in-Class (BIC) contracts.
- **Customer Satisfaction:** Improve performance based on annual internal customer satisfaction survey and the annual external government-wide Customer Satisfaction Survey.

Procurement Overview

In 2023

- NASA's total obligations totaled over $22 billion
  - Over $21 billion in procurement obligations
  - Over $1 billion in grants and agreements obligations
- The total number of actions totaled over 34,000
  - The number of procurement actions totaled over 24,000
  - The number of grant & agreement actions totaled over 10,000

Spend Under Management



Trends in Awards (Representative of New Awards & Modifications)

Fiscal Year	Procurement Obligations	Grant & Agreement Obligations	Total Obligations
2023	$21,031,039,938.15	$1,285,050,976.39	$22,316,090,914.54
2022	$19,917,962,695.82	$1,326,469,538.14	$21,244,432,233.96
2021	$19,220,109,556.55	$1,214,544,247.20	$20,434,653,803.75
2020	$19,089,622,997.85	$1,163,256,207.53	$20,252,879,205.38
2019	$18,169,200,219.48	$1,177,404,540.58	$19,346,604,760.06

Actions & Obligations by Business Category
(does not include Grants & Agreements)

Category	Dollars Obligated	Number of Actions
Small Business	$3,632,530,461.45	12,875
Large Business	$13,541,537,949.86	8,413
Educational	$3,317,404,141.73	2,304
Minority Owned	$1,956,059,072.94	5,656
Non-Profit	$3,617,186,502.57	2,883
Foreign	$72,066,342.43	239
Other U.S. Government	$198,549,729.45	559
AbilityOne	$22,816,721.86	108

Competition in NASA Awards

A. Competition in Contracting Act

The Competition in Contracting Act (P.L. 98-369), with limited exceptions, requires full and open competition within the Federal Government. Full and open competition means that all responsible sources are permitted to submit sealed bids or competitive proposals on a given procurement. Contracting without providing for full and open competition is allowable under certain circumstances. Written justification is required to award a procurement on another than full and open competition basis.

B. Reporting of Competition

NASA developed a competition advocacy program to enhance and promote competition and to eliminate barriers to full and open competition. NASA has appointed an Agency competition advocate to oversee the program, and each NASA Center has a designated competition advocate. Federal agencies are required to prepare and submit an annual report to the agency Senior Procurement Executive and the Chief Acquisition Officer in accordance with agency procedures.

C. Competition During Fiscal Year 2023

Appendix II shows competition in NASA awards to business firms for all fiscal years beginning with 1961.

Trends

Procurement Administrative Lead Time (PALT) Trends

The General Services Administration (GSA) began reporting Procurement Administrative Lead Time (PALT) metrics in Fiscal Year 2020 for all federal agencies. This metric is derived by counting the number of calendar days between the Solicitation Issue Date and the Award Date of a contract, with results being reported as number of days divided by transaction count. Agencies began reporting this data to the Federal Procurement Data System (FPDS) in June 2019. NASA has made significant improvements in data quality and process and policy standardization leading to reductions of overall PALT, exemplified below from GSA's official reports:

2020	2021	2022	2023
373 days	325 days	116 days	96 days

Competition Trends

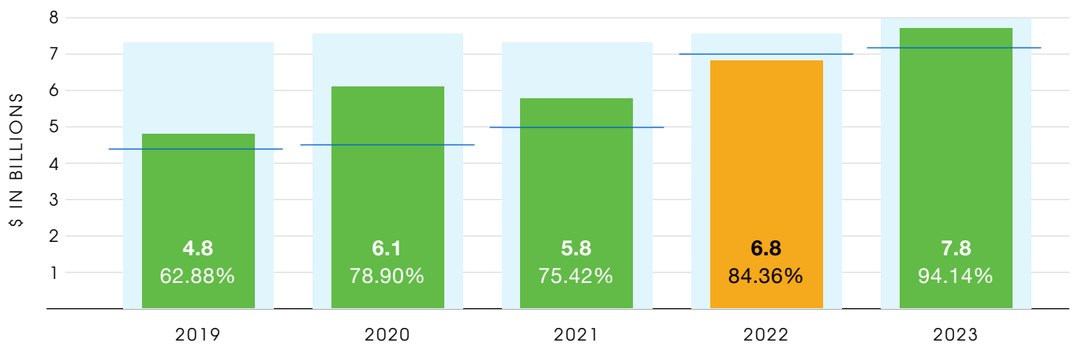
NASA's number of competed actions and competed dollars, against total actions and total dollars awarded in a fiscal year, overall have slowly increased since 2019 in all but two years. Competed actions from 2019 to 2023 have varied from 17,385 (68.54%) to 16,917 (68.9%) and competed dollars have increased from $11.97B (65.88%) to $13.86B (65.89%). Over the last 5 years, NASA's competed actions average 17,796 and competed dollars average $13.2B.

Fiscal Year	Competed Actions	% Competed Actions	Competed Dollars	% Competed Dollars
2023	17,006	69.00%	$13,876,277,278.33	65.98%
2022	19,172	71.22%	$13,458,251,694.09	67.57%
2021	17,709	69.59%	$13,355,160,118.91	69.49%
2020	17,796	70.25%	$13,110,203,092.27	68.68%
2019	17,399	68.53%	$11,970,204,373.90	65.88%

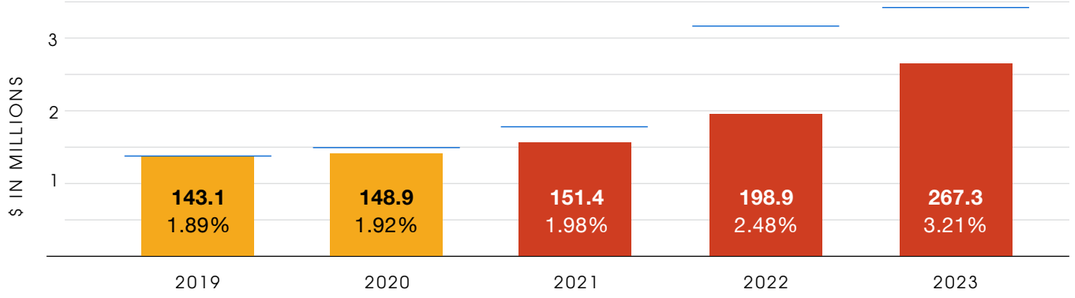
A SpaceX Falcon 9 rocket with the company's Dragon spacecraft on top is seen on the launch pad at Launch Complex 39A as preparations continue for the Crew-7 mission, Monday, Aug. 21, 2023, at NASA's Kennedy Space Center in Florida.

Photo credit: NASA / Joel Kowsky

Spend Under Management (SUM)



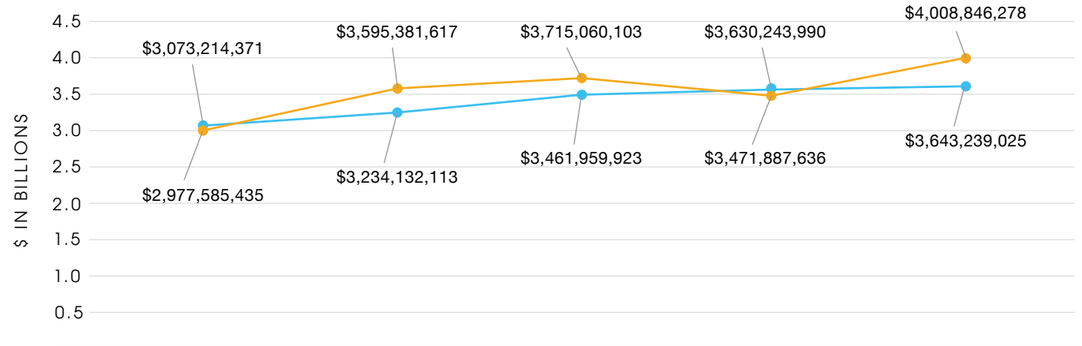
Best In Class Obligations (BIC)



[1] Spend Under Management (SUM) is the percentage of an agency's spending obligated on agency-wide (Tier 1), multi-agency (Tier 2) or BIC (Tier 3) contracts; or contracts awarded to socioeconomically disadvantaged small businesses (Tier 2-SB).

[2] Best-in-Class (BIC) refers to tier 3 contracts available for use government-wide that have been vetted by solution owners, agency users, and subject matter experts resulting in a designation as BIC by OMB.

NASA Prime and Subcontracting Dollars Trends



	FY2019	FY2020	FY2021	FY2022	FY2023	FY19–FY23 %	FY19–FY23 $
Prime	$3,073,214,371	$3,234,132,113	$3,461,959,923	$3,630,243,990	$3,643,239,025	18.5%	$570,024,654
Subcontracting	$2,977,585,435	$3,595,381,617	$3,715,060,103	$3,471,887,636	$4,008,846,278	34.6%	$1,031,260,843
Total Small Business	$6,050,799,806	$6,829,513,730	$7,177,020,028	$7,102,131,626	$7,652,085,303	26.4%	$1,601,285,497
Total Small Business Eligible Spend	$17,666,905,370	$18,426,228,532	$19,044,727,743	$19,710,919,937	$20,668,068,112	16.9%	$3,001,162,742

[3] Total Small Business Eligible Spend is pulled from the Small Business Goaling report from sam.gov. It represents the aggregation of dollars obligated, after exclusions are applied.

Small Business Trends

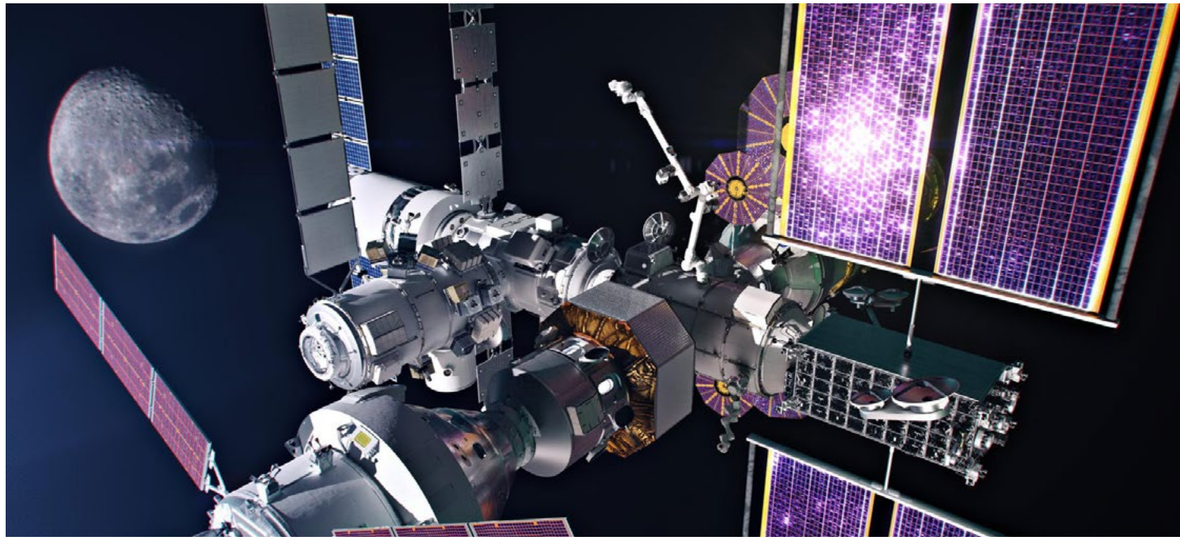
NASA's total dollars awarded to small business prime contractors and small business subcontractors have increased since fiscal year 2019. In 2019 NASA small business prime dollars (contract awarded directly to a small business) was $3.0B and small business subcontractor dollars were $2.9B. Between 2019 and 2023, small business prime dollars increased $570M (19%) and small business subcontracting dollars increased $1.03B (35%).

Since 2019, NASA total dollars awarded to small businesses (prime and subcontractor) have increased by $1.6B (26%). These noteworthy increases in small business dollar (prime & subcontractor) were achieved even though NASA's total spend only increased by 17% (2019 - 2023).

NASA's successes are largely attributable to its robust engagement with industry (large and small businesses). Such engagement fosters networking and relationship-building between primes and potential subcontractors.

Small Business Actions

Total Small Business Eligible Actions	24,454
Small Business Actions	12,865
Small Business Action Percentage	53%

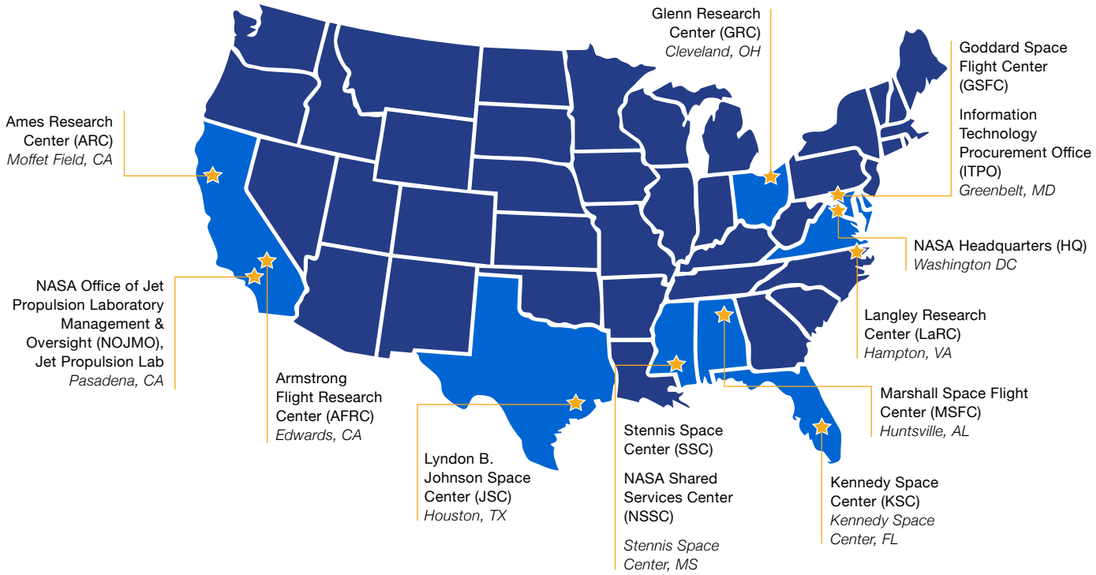


Artist's concept of the full Gateway configuration.
Image credit: NASA

Small Business Achievements by Awarding Organization

Category	Dollars Obligated	# of Actions	% Total Obligations
FY2023 – Small Disadvantaged Business	**$1,603,221,271.03**	**5,815**	**7.77%**
FY2022 – Small Disadvantaged Business	$1,584,361,101.73	5,978	7.97%
FY2023 – 8(a) Program Small Business	**$852,546,114.84**	**1,766**	**4.13%**
FY2022 – 8(a) Program Small Business	$764,844,943.98	1,679	3.85%
FY2023 – Veteran-Owned Small Business	**$511,265,682.30**	**1,883**	**2.48%**
FY2022 – Veteran-Owned Small Business	$312,346,423.76	2,011	1.57%
FY2023 – Service-Disabled Veteran-Owned Small Business	**$483,274,463.66**	**1,569**	**2.35%**
FY2022 – Service-Disabled Veteran-Owned Small Business	$286,228,742.94	1,599	1.44%
FY2023 – Woman-Owned Small Business	**$822,205,191.91**	**3,564**	**3.98%**
FY2022 – Woman-Owned Small Business	$842,085,754,54	3,729	4.23%
FY2023 – Certified HUBZone Small Business	**$198,215,544.17**	**1,406**	**0.96%**
FY2022 – Certified HUBZone Small Business	$196,650,298.97	1,446	0.99%

Activity by Procurement Office Location



Contracting Office Name	Procurement Dollars Obligated	Actions	Grant & Agreement Dollars Obligated	Actions
Ames Research Center	$447,204,136.04	932	($22,978.13)	5
Armstrong Flight Research Center	$243,736,190.73	584	($50,710.00)	1
Glenn Research Center	$572,972,031.08	1,534	-	-
Goddard Space Flight Center	$3,028,955,026.07	2,717	$32,013,050.35	13
Information Technology Procurement Office	$739,432,277.21	1,819	-	-
Johnson Space Center	$4,624,245,019.27	2,565	$18,482,999.67	13
Kennedy Space Center	$2,194,565,608.13	1,823	-	-
Langley Research Center	$467,233,272.64	1,135	$3,543,764.23	16
Management Office - APL/JPL	$2,893,841,823.03	1,638	-	-
Marshall Space Flight Center	$4,696,062,688.79	2,053	$34,627,728.44	44
NASA Headquarters	$240,699,540.46	945	-	-
NASA Shared Services Center	$682,796,915.78	6,518	$1,196,457,121.83	9,944
Stennis Space Center	$200,070,515.04	531	-	-
	$21,031,039,938.15	**24,794**	**$1,285,050,976.39**	**10,036**

Awards by Type – PSC

PSC Category (Description)		Total Actions	% Total Actions	Total Dollars
Products	1	893	3.63%	$1,189,490,964.75
	2	54	0.22%	$67,423,386.75
	3	102	0.41%	$4,834,297.14
	4	114	0.46%	$4,877,976.09
	5	190	0.77%	$19,437,265.96
	6	1,008	4.09%	$155,450,563.25
	7	2,011	8.17%	$83,762,897.78
	8	13	0.05%	$1,077,369.44
	9	498	2.02%	$215,652,936.57
Research & Development	A	7,287	29.60%	$11,730,136,438.57
Services other than R&D	B	373	1.51%	$107,665,870.87
	C	520	2.11%	$163,381,718.32
	D	2,239	9.09%	$1,119,237,357.21
	F	124	0.50%	$21,937,624.29
	G	5	0.02%	$101,215.12
	H	273	1.11%	$24,561,968.87
	J	432	1.75%	$117,800,886.10
	K	70	0.28%	$15,915,226.83
	L	7	0.03%	$118,624.48
	M	482	1.96%	$323,701,334.90
	N	42	0.17%	$3,105,335.64
	P	11	0.04%	$768,479.94
	Q	78	0.32%	$7,675,914.15
	R	4,546	18.46%	$2,904,163,190.91
	S	877	3.56%	$336,543,828.32
	T	24	0.10%	$737,091.21
	U	220	0.89%	$11,369,045.20
	V	381	1.55%	$1,846,669,295.33
	W	49	0.20%	$94,496,439.10
	X	12	0.05%	$621,777.67
	Y	753	3.06%	$143,630,901.78
	Z	933	3.79%	$314,692,715.61
		24,621		**$21,031,039,938.15**

Top 25 NASA Contractors

1. Califonia Institute of Technology
2. Space Exploration Technologies Corp.
3. The Boeing Company
4. Lockheed Martin Corporation
5. Northrop Grumman Corporation
6. KBR Wyle Services LLC
7. Jacobs Technology Corporation
8. John Hopkins University
9. Science Applications International Corporation
10. Jacobs Engineering Group
11. Blue Origin LLC
12. Peraton Corp.
13. GenCorp Inc.
14. Bechtel National Inc.
15. Leidos Holdings Inc.
16. Association f Universities for Research in Astronomy, Inc.
17. United Technologies Corporation
18. Air Products and Chemicals Inc.
19. PAE Incorporated
20. Syncom Space Services LLC
21. Booz Allen Hamilton Holding Corporation
22. Ball Corporation
23. Maxar Space LLC
24. The Aerospace Corporation
25. Leidos Inc.

Top 25 Small Businesses

1. Science Systems and Applications, Inc.
2. Aerodyne-SGT Engineering Services LLC
3. Analytical Mechanics Associates Inc.
4. ASRC Federal System Solutions LLC
5. Chenega Corporation
6. Noosphere Venture Partners LP
7. Barrios Technology LTD.
8. Astrobotic Technology Inc.
9. Mitchell Vantage Systems LLC
10. Alcyon Technical Services (ATS) JV LLC
11. Sierra Lobo Inc.
12. ASRC Federal Data Solutions LLC
13. RSI-Quantitech JV LLC
14. HX5 LLC
15. Axiom Space Inc.
16. ADNET Systems Inc.
17. HX5 Sierra LLC
18. Manufacturing Technical Solutions Inc.
19. Bastion Technologies Inc.
20. Guardians of Honor LLC
21. Healtheon Inc.
22. Agile Decision Sciences LLC
23. Yulista Solutions LLC
24. Intuitive Machines Inc.
25. Minburn Technology Group

Refer to Appendix for additional information pertaining to NASA Awards.

Jamiel Charlton and Karla Smith Jackson pose in front of an Artemis display.

PEOPLE

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

Priorities and Accomplishments

Cultivate a nationalized acquisition workforce that implements an enterprise-wide acquisition workforce model that leverages employee skills and capacity across the Agency.

NASA established a robust Enterprise Warrant Program and Enterprise Mentoring Program as Leading Initiatives for its Acquisition Workforce.

Enhance acquisition career development and leadership training by promoting a culture of growth and learning.

Office of Procurement Enterprise Awards | FY23

The OP Enterprise Awards recognizes individuals for their outstanding accomplishments that affected the entire Enterprise and were selected after a thorough and extensive screening process. The FY23 recipients are as follows:

Contract Specialist of the Year (Post Award)

LaRC: Curtis M. Hyman

GRC: Matthew C. Sheridan

Contract Specialist of the Year (Pre-Award)

LaRC: Alicia M. Kelly-Eslinger

GSFC: Tiffanie C. Ferrell

Grants and Agreements Support Specialist of the Year

NSSC: Racheal A. Down

Procurement Analyst of the Year

KSC: Karen L. Rivaud

Procurement Support Person of the Year

MSFC: Jamie P. Narrell

Cost/Price Analyst/Auditor of the Year

HQ/EPO: David J. Rutkowski

Procurement Supervisor of the Year

JSC: Adrian D. Clayton

Contracting Officer's Representatives (COR) of the Year

JSC: Elizabeth A. Cooke

Enterprise Team Award

Made in America Working Group HQ:

Lakeeta J. Young-Hill

Antanese N. Crank

Andrew O'Rourke

Erica D. Jones

Corey A. Walz

Ledetria T. Beaudoin (HQ/OCFO)

Early Career Contract Specialist of the Year

GSFC: James H. Kim

Office of Procurement Acquisition Improvement Awards | FY23

The Acquisition Improvement Awards reward NASA individuals for creating and implementing improved results on individual contracts, or innovative changes in contracting processes that save resources and enhance mission attainment. The FY23 recipients are as follows:

Langley Research Center (LaRC) Research, Science, and Engineering Services (RSES) Procurement

Ryan D. Bradley

Richard T. Cannella

Jared S. Fell

John J. Murray

Teresa N. Anthony

Michael J. Garton

Kevin P. McNamara

Autumn N. Tyler

Johnson Space Center (JSC) Engineering, Technology and Science (JETS) II

Jeff Dutton

Shine Lin

Marie A. Kowal

Regina Senegal

Joseph A. Hamilton

Amanda L. Graziosi

Tiffany A. Comeaux

Lisa A. Terrell

Sonya Harmon

William G. Shockley

Members of NASA's Landing and Recovery team load a mannequin into the Crew Module Test Article (CMTA) during Underway Recovery Test 10 in the Pacific Ocean.

Photo credit: NASA / Frank Michaux

People Accomplishments

Members of OP attend the 4th Annual Supervisory Leadership Forum in Nashville, Tennessee.

La'Kisha Douglas and Cynthia Thomas take a photo while attending NCMA World Congress 2023 in Nashville, Tennessee.

Acquisition Workforce Data:
No. Warranted and No. Certified

In FY23, NASA had approximately 4,464 certified acquisition professionals. This included approximately 833 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 3,485 Contracting Officer Representatives (CORs), and on average, 146 NASA FAC P/PMs.

In September 2023, prior to the sunset of the legacy Federal Acquisition Certification for Contracting (FAC-C) certification program, NASA's acquisition workforce accomplished certification at various levels: Level III at 65%, Level II at 23%, and Level I at 12%. Roughly, 61% (510/833) of the NASA 1102 workforce hold warrants at various levels. Last, upon the implementation of OFPP's FAC-C Modernization policy, all certified contracting professionals were grandfathered into the FAC-C Professional single-level certification program.

Agency Total for FAC-COR: 3545

	Level I	Level II	Level III	Total
FAC-C Professional				833
FAC-COR	136	3278	71	3485
FAC P/PM			146	146
Total FY23 FAC Certifications				4464

Acquisition Workforce Training Data

OP's Career Development and Training Program continues to successfully ensure that NASA's acquisition workforce is appropriately trained and certified to support NASA's procurements and programs. The OP hosted acquisition training courses (CON courses, COR courses, webinars, and other continuous learning courses) to support the career development and certification needs of the procurement workforce. In FY23, a total of 371 people became newly certified, earned advanced level, or a specialty certification. Specifically, 145 FAC-Cs, 214 FAC-COR, 3 FAC-C Digital Services, and 9 FAC P/PM certifications were successfully achieved.

Additionally, OP placed emphasis on providing current, relevant, and timely policy topics and continuous learning courses. OP continues to host the NASA Procurement Quarterly Training series. In FY23, OP hosted several guest speakers and highlighted numerous topics such as "Ask Me Anything: FAC-C Modernization Discussion with Office of Federal Procurement Policy (OFPP)", "Go HUBZone! Maximizing HUBZone Set-Aside Options for Equity, Scorecard and Community Impact: "Steps of awarding AbilityOne Contracts", "Made in America Executive Order", "Freedom of Information Act (FOIA) Training", Advancing Diversity, Equity, Inclusion and Accessibility for Underserved Communities in Procurement", and "NASA Category Management". The popularity for this virtual resource continues to grow. Over the course of the fiscal year, webinar attendance totaled over 1,500 procurement professionals. Additionally, OP offered numerous COR certification and COR focused continuous learning courses. Efforts were expanded to develop the technical knowledge and expertise of the COR community. OP not only offered certification courses (COR Basic/Intermediate) but also technical courses such as Conducting Technical Evaluations, Acquisition Planning, Appropriations Law Seminar, COR Recertification Suite, and COR Refresher. The FY23 COR Training Calendar met the needs of over 536 CORs.

FY23 FAC Certifications Earned	Level I	Level II	Level III	Total
FAC-C	42	40	63	145
FAC-COR	99	67	48	214
FAC-C DS			3	3
FAC P/PM			9	9
Total FY23 FAC Certifications Earned				**371**

OP Federal Acquisition Institute Federal Acquisition Certification for Program/Project Managers (FAI FAC-P/PM) Pilot Program

In support to agency's goal to improve the program and project managers (P/PM) skills of the workforce as outlined under Office of Management and Budget (OMB) Program Management Improvement Accountability Act (PMIAA) memo, the Office of Procurement (OP) and Chief Program Management Office (CPMO) teamed up to bring the Federal Acquisition Institute's (FAI) Federal Acquisition Certification for Program and Project Managers (FAC-P/PM) program to the NASA workforce. The FAI FAC P/PM Pilot program aimed to ensue program and project managers, at all levels, had access to training and to build the program and project management competencies of the agency.

Notably, NASA's agency unique FAC P/PM Program is dedicated to NASA Program and Project Managers (P/PMs) that manage major acquisitions with life cycle costs of more than $250 million as defined in NPR 7120 or high visibility. Due to the high-level criteria, OP identified a gap in the training needs of the technical community. The goal of the FAI FAC-P/PM Pilot Program aimed to provide accessibility to additional P/PM training in support of individuals that manage programs/projects under the $250 million threshold and agency tasks/initiatives that fall under the various Mission Support Offices.

The OP FAI FAC P/PM Pilot Program hosted two (2) cohorts for completion of the FAI FAC-P/PM Entry Level certification requirements. Candidates for the pilot program included acquisition professionals at NASA performing program and project management activities and functions such as:

- developing accurate government requirements,
- defining measurable performance standards,
- oversight of cost, schedule, performance, and risk
- managing life-cycle activities

As defined by FAI, the required training and certification requirements focused on essential functional and technical competencies needed for P/PMs. The program participants included individuals from a wide range of disciplines – Safety, Mission, and Assurance (SMA), Logistics, Information Technology (IT), Engineering, Program Analyst, Industrial Property, Auditors, and Contracting. Upon completion of the pilot program, numerous technical professionals successfully earned FAI's FAC P/PM Entry Level certification and now have access to valuable P/PM training that will improve the P/PM practices across the agency. As a notable accomplishment on a larger scale, the accessibility of the FAI's FAC P/PM certification program brings the agency into alignment with the rest of the federal civilian agencies and P/PM communities of practice.

Enterprise Warrant Policy

NASA's Enterprise Warrant Program (EWP) has been updated to align with OFPP's Federal Acquisition Certification in Contracting (FAC-C) Professional single-level certification program outlined in OFPP January 19 2023 Memo, entitled, "Federal Acquisition Certification in Contracting (FAC-C) Modernization". NASA's Enterprise Warrant Program now includes the integration of credentials curated by the Defense Acquisition University (DAU)/Federal Acquisition Institute (FAI) and a minimum years of experience requirement. This approach places on emphasis on lifelong learning, and specific skill-based training to complement on-the-job experience and specialized knowledge for the workforce.

Specifically, NASA's warrant policy incorporates a dual approach that now requires, 1.) completion of an outlined Credentials or 2.) completion of any Mission Area specific courses or attainment of a Credential(s) of choice depending on the unique training needs identified for the contracting professional. In addition, for contracting professionals aspiring to the highest levels of warrant authority, the Office of Procurement established a Contracting Officer Review Board (CORB) to accomplish an integrated assessment of the agency's need and the candidate's experience, training, education, business acumen, judgment, character, and reputation.

The benefits of outlining credential focus areas as part of the agency's warrant policy develops a comprehensive and transformational approach that will cultivate a dynamic acquisition workforce at all levels. Earning credentials will help acquisition workforce members better understand the important and unique aspects of contracting beyond what is learned during the FAC-C Professional certification program.

The EMP will undoubtedly continue to ensure that contracting professionals have the right skills necessary to execute innovative, effective, and efficient acquisition business solutions. Due to the steadfast dedication of OP Leadership and the NASA Acquisition Career Manager (ACM), NASA's EWP has been acknowledged as a premier program among federal civilian agencies.

Grant Policy and Compliance (GPC) – Training

To ensure that NASA's grant programs are managed effectively, Grants Policy and Compliance (GPC) continued to develop and deliver training for NASA personnel and the public throughout FY23. Trainings for NASA personnel were provided via GPC's monthly grants community meetings, as on-demand courses in SATERN, and/or published on OP's new grants and cooperative agreements YouTube Playlist.

Training NASA Grants Personnel

- GPC delivered an on-demand SATERN training, Award Closeout, focused on policies and procedures required for timely grant closeout. In a post-training survey, 100% of learners agreed that they learned new skills from the course, and 90% expressed feeling confident in their ability to apply these skills to their work.
- GPC delivered a tailored training session for the nine, often first-time serving, Technical Officers (TO) assigned to manage earmark awards. The training introduced the grants life cycle, applicable grant regulations and policies, and TO roles and responsibilities for the management of $30.7M in awards.
- GPC delivered two trainings to Grant Officers, Technical Officers, and Program Managers via its monthly internal grant's community meeting. These monthly meetings average approximately 53 NASA personnel in attendance. Trainings given during these meetings include the 1. Single Audit Process and 2. Grants vs. Cooperative Agreements.

Training the Public

To provide information on NASA's grant programs and policies to the public, GPC published four training videos to its new YouTube Playlist between June and September 2023. The YouTube Playlist is a first for OP, and it allows GPC to increase awareness of its grant-issuing programs and policies. By the end of September, these videos had garnered about 9,000 views from the public. The four trainings address the following:

- Ask NASA Part 1: Pre-award activities and requirements for successfully partnering with NASA via grants and cooperative agreements.
- Grants & Cooperative Agreements 101: Introducing novice proposers and grantees to federal financial assistance highlighting the primary regulations that govern federal grants.
- Grants & Cooperative Agreements 102: Key activities that occur at NASA throughout the grant life cycle, NASA's and recipients' roles and responsibilities, and best practices for effective grants management.
- Introduction to 2 Code of Federal Regulations: The primary regulation that governs federal grants, Title 2 of the Code of Federal Regulations (CFR). This training outlines the major components of the regulation and describes actions that NASA's grant recipients need to take to ensure compliance.

Members of the OP workforce attend the 4th Annual Supervisory Leadership Forum in Nashville, Tennessee.

Office of Procurement Leadership*

** For the most up to date information, visit www.nasa.gov/office/procurement*

Enterprise Service and Analysis Division Update

The implementation of the Enterprise Service and Analysis Division (ESAD) marks a significant stride forward in procurements continued organizational evolution to a robust enterprise, building upon OPs transformation. Spearheaded by the E-Business System Office (EBSO), OP established robust agency-wide capabilities in e-business systems, streamlined acquisition data collection, and empowered acquisition data-driven decision-making through advanced reporting and analysis. The Enterprise Pricing Office has taken charge of ensuring comprehensive support across the enterprise for cost and price analysis of proposals, offering invaluable audit assistance, and facilitating efficient contract closeouts. The below highlights of the ESAD division captures a tremendous amount of progress after becoming operational in August 2022.

E-Business Systems Office (EBSO)

The Office of Procurement (OP) established the E-Business Systems Office (EBSO) under the Enterprise Service and Analysis Division (ESAD) to lead the Agency efforts in implementing eGovernment requirements for procurement E-Business systems and federal procurement data reporting initiatives. Led by Mr. Steve Shiplett, Director of the EBSO, the office has cognizance over the NASA Contract Management System and other E-Business systems that enable the acquisition workforce at NASA, internal sites, all efforts to define and govern data (standardization and analysis) that will be used to manage OP services, and the creation of Procurement Dashboards, metrics, and other analytical data tools, that will provide greater insight into the procurement function across the Enterprise.

The vision, strategy, and mission of the team is to provide unparalleled support in all E-Business processes at the Enterprise level including immediate improvements in data integrity, dashboards, contract management system replacement, Enterprise Procurement Business Process Analysts (EPBPA) support, and NASA external reporting.

Process

Building the Team

The EBSO was formed in August of 2022 when Steve Shiplett and Geoffrey Sage, Director, Enterprise Service and Analysis Division (ESAD), began working on the strategy for the formation of the team. This included considerations for duties and responsibilities of the team, staffing requirements for the team, and talent and skill requirements for the team members.

Director, E-Business Systems Office

The Director of the E-Business System Office was instrumental in creating the E-Business Systems Office (EBSO) from the ground up. Using his wealth of experience, the EBSO Director has greatly contributed to the team's definition, and understanding of desired requirements for the new contract writing system and led the revolutionization of NASA reporting, metrics, analytics, and dashboards.

He not only understands the desired output from a new contract writing system, but also understands the system logic working behind the scenes, anticipate future technology requirements, and can communicate those requirements to other members of the team who do not "speak" contracts or understand technology. This unique skill has constructively contributed to the positive transition NASA is making, as it transitions to a new contract management system.

The EBSO Director led the NASA contract management system (NCMS) replacement team. This was a cross functional cooperative effort with more than 200 members across all of NASA that is defining the strategic plan for the NASA enterprise-wide procurement systems.

The Enterprise Procurement Data Architect has designed and developed several interactive

The Enterprise Service Analysis Division (ESAD) Face to Face, January 2023.

dashboards that have the capability to provide near real-time access to authoritative data sources to alleviate issues with data integrity. These dashboards afford OP the ability to deliver concise and consistent answers to both internal and external taskings, thorough data analysis, and communicate with the Enterprise a cohesive message.

Recent developments include:

- NASA at a Glance: A high-level view of Agency contractual performance
- NASA by the Numbers: An executive-level view of procurement details against historical performance
- CPARS Performance: Monitoring of center-level and agency-level vendor performance and timeliness
- NASA Contracting Benchmark: A detailed view of how the Agency is performing against the methodologies and benchmarks required by OMB
- PALT Cleanup Dashboard: A center-level view of historical and current PALT timeliness and data quality improvement
  - Reduced the PALT from the previously reported 325 days for FY21 to 96 days for FY23
- CAR Anomaly Dashboard: Areas of consideration to make consistent data practices and entry into a system of record that is mandated by the FAR
- Office of Small Business Programs Reporting Improvements

Enterprise Procurement Program Manager for the NASA Contract Management System (NCMS) Replacement

EBSO hired an Enterprise Procurement Program Manager (EPPM) for the NCMS replacement from the Office of the Chief Information Officer. The EPPM is leading the NASA Contract Writing System Replacement efforts and has an in-depth knowledge of NASA's current Procurement and Financial systems. The EPPM was responsible for guiding the team conducting technical analysis and documentation in a fast paced compressed seven-month effort to accomplish the following NCMS Project Major Milestones:

- Community Survey (537 responses (71%))
- Enterprise Listening Sessions (19 sessions, 145 people)
- Interviews (5 specialized teams)
- Shadow Sessions (7 specialized sessions with key SMEs)
- Rumble Workshops (97% participation rate)
- Current State Business Process Mapping
- Process flows (current and future state)
- 19 vendor capabilities demos as part of capabilities market research on latest trends available in industry for contract life cycle management systems

The EPPM was instrumental is preparing the NCMS project plan and development of the Request for Information (RFI) released in February 2023.

In addition to releasing the RFI, the EPPM was instrumental in preparing the detailed Statement of Work for the new NASA Contract Management System which was incorporated in the Request for Proposal and the subsequent contract award in September 2023.

Enterprise Procurement Tools and Processes Lead

The Enterprise Procurement Tools and Processes Lead was hired in early calendar year 2023. The Tools and Processes lead was responsible for performing a detailed analysis of existing center created procurement applications and metric reporting tools. The goal of this activity was to create a plan to bring unique applications up to the Enterprise and decommission disparate applications. In addition to providing day to day leadership to the Enterprise Procurement Business Process Analysts, the tools and processes lead is also responsible for:

- Creating an EBSO strategic roadmap
- Creating Standard Operating Procedures (SOP) for new EBSO tools and applications
- Creating user training/videos

Enterprise Procurement Business Process Analyst

The EBSO is leveraging the expertise of the Center Business Process Leads (CBPLs) and incorporating the corporate knowledge each has into a new smaller core team of Enterprise Procurement Business Process Analysts. The EPBPA support is a service EBSO provides to the acquisition workforce and creates a focal point for all EBSO supported applications. The EPBPA's are Center advocates assisting in the integration of e-Business efforts and developing optimized strategies for enterprise OP Solutions and e-Business initiatives.

These efforts include:

- Providing expert technical advice to OP enterprise workforce related to the NASA Contract Writing Systems
- Advising OP enterprise workforce related to the NASA Data Warehouse and Reporting tools (e.g., Enhanced Procurement Data Warehouse (EPDW)); Federal Procurement Data System (FPDS); Contractor Performance Assessment Reports System (CPARS); and System for Award Management (SAM.gov)
- Analyzing procurement data, identifying areas of improvement, making recommendations for corrective actions, and following up to ensure that concerns are addressed
- Developing or updating acquisition regulations, policies, and procedures
- Advising management and contracting officers on matters pertaining to regulations, policies, procedures, contracting actions, contracting procedures, and policy interpretation

Osiris-REX capsule after re-entry into Earth's atmosphere.

NASA Contract Management System

The current NASA Contract Writing System (NCWS) requires an upgrade to help it perform basic contract and grants management functions and is reaching end of life. The longer the current system is utilized, OP users must navigate a combination of manual processes, center-specific solutions, OP HQ created solutions, email, and legacy and/or end of life (EOL) solutions to accomplish both contract life cycle management and grants writing. Without an enterprise contract life cycle management solution, there could be potentially unacceptable delays in contract and grants awards and modifications directly impacting the likelihood of achieving mission success due to numerous issues with data integrity, job fatigue, and human errors inherent with manual processing. In addition, in the current environment, NASA is in need of a single source-of-truth system for NASA's contractual data which directly impacts strategic data-driven decision making because key contract and grant award data are not available.

At a high level, a new contract life cycle management system will provide five (5) core capabilities for both contract and grants authoring:

- Acquisition Planning
- Solicitation and Authoring
- Document Management
- Reporting
- Contract Administration

In the spring/summer of 2022, NASA OP and the Office of the Chief Information Officer (OCIO) Application Platform Services (APS) Office conducted an analysis and assessment to identify and document pain points and capability gaps with the current enterprise contract system. In the summer of 2022, the critical functionality gaps, workarounds, manual processes, ticket counts, backlog of discrepancies, etc. were documented and analyzed. The result of this analysis and assessment was OP identified the immediate need for a comprehensive contract life cycle management system.

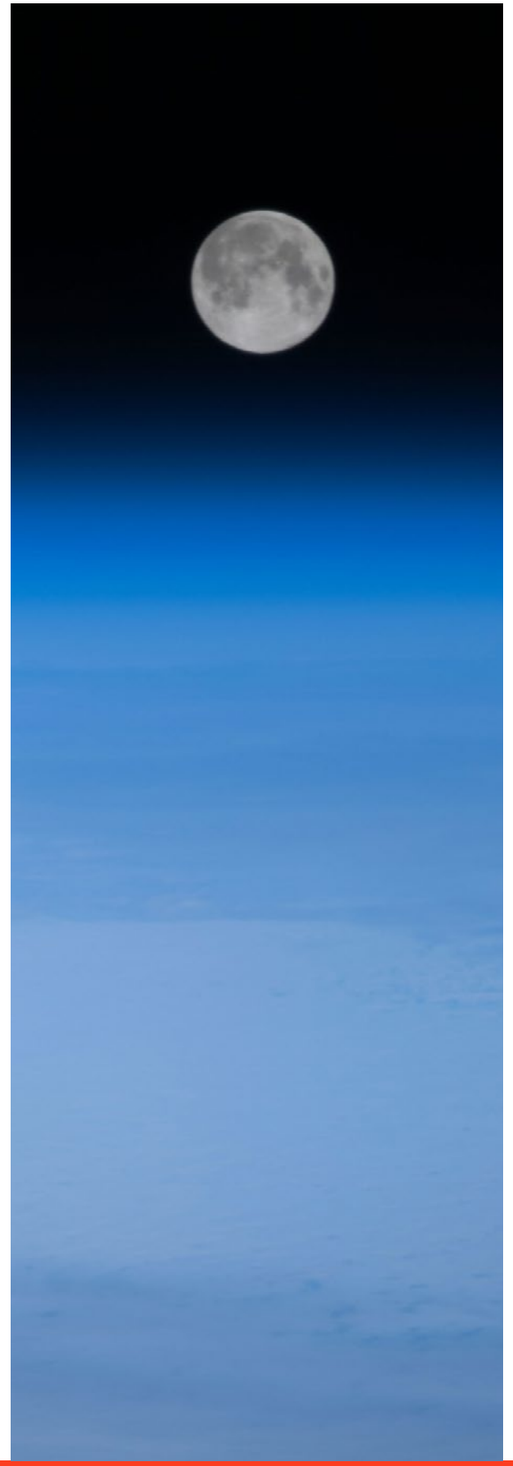
As the EBSO was stood up, it was decided this office would be the lead for the new NASA Contract Management System (NCMS) effort.

In September 2022, the OP and OCIO APS office requested support in performing an investigation and analysis of the current Contract Writing System in preparation for a new NASA Contract Management System (NCMS) to support both current and future needs. The EBSO team led a seven month human centered design discovery phase. The discovery phase ended in June 2023 and the following key discovery activities were conducted:

- Survey conducted with users of the current systems. 71% response rate
- 19 Listening Sessions that included 145 participants (human centered design)
- Group interviews with SMEs that included OP, OCFO, OSI, Grants, and OCIO/APS (deep dive on needed functional capabilities that extended to greater stakeholder community)
- 2-day capabilities discovery workshop
- Numerous initial Contract Life cycle Management vendor demonstrations to canvass technology landscape and uncover innovations in industry
- Weekly Working Group briefings with key stakeholders at working level across the OP Enterprise on progress and analysis outcomes and answer any related questions
- Bi-weekly meetings with OP leadership across the OP Enterprise to brief progress on analysis outcomes and answer any related questions
- Capabilities prototypes were developed to flesh out UI design requirements

Concurrent and separate civil servant discovery activities:

- Decomposition of captured capabilities into functional and technical requirements
- Meetings with civil servants from other federal agencies to have candid and open discussions on their current tools and capabilities, lessons learned, and progress on their efforts to satisfy their agency's CLM needs
- Decisional Working group and Leadership Committees briefings and discussions on finalizing business requirements and business process future state



The team discovered a few key findings during discovery:

- Existing primary enterprise systems had user interfaces that were outdated, and not intuitive User frustration was very high, and the sequence of steps needed to complete work was difficult to train to new employees
- Due to lack of a comprehensive contract life cycle management tool, users must swivel chair to multiple systems to accomplish their job duties
- Data integrity issues due to re-key of data in multiple systems

An Independent Technology Assessment evaluated 3 possible path forward options for NASA in acquiring a CLM solution: ERP, Low-Code Platform, Best of Breed. After this evaluation, it was found that NASA's technology needs would be best met with a low-code platform CLM solution. The consultant evaluation outlined a potential 20% reduction in technical footprint and 30% increase in productivity through adoption of a comprehensive low-code CLM solution.

EBSO also benchmarked with the following federal agencies from 2022-2023:

Army, Navy, Air Force, DOJ, IRS, USDA, DLA, FDIC, CIA, FBI, HHS, DOI, DoD Secretary of Defense, CDC, and DOE. A common trend with majority of Federal agencies is to pursue a replacement of contract life cycle management system outside of core ERP system.

Market research led to the formation of a detailed Statement of Work for the new NASA Contract Management System and releasing a Request for Proposal which resulted in a contract award in September 2023.

Custom web-based tools to improve efficiency

The EBSO created several web-based tools and automation to improve efficiency and communication within the procurement workforce.

Three tools that exhibit this improvement well are the Weekly Activity Report, E-Business Systems Office Service Request Tracker, and Contract Status Review (Top 5) applications. Both the weekly activity report and the contract status review transformed cumbersome processes that required a lot of time and effort in manual compilations of materials with no way to search or analyze any historical data and trends into a streamlined efficient means of reporting and reviewing activities.

Developing one space accessible enterprise-wide for information that previously existed in several different files and formats and was stored across multiple spaces, has greatly increased the speed of finding, inputting, and reviewing the data, thereby freeing up time for other duties.

The EBSO Service Request tracker has been rolled out to 3 centers since April 2023 and EBSO has received over 680 tickets requesting a new solution, update to an existing application, request help, or report an issue to applications supported by EBSO. The EBSO uses this ticket system to record and track all requests and to triage service. The system defines the processes necessary to ensure requests for service are resolved in an efficient and timely manner. The EBSO will use this data to identify centers that may be having trouble with a particular application and provide additional instruction, track the type of problems encountered for each application, uncover recurring problems, and assist in planning a corrective course of action, and generate statistics, such as the number and type of requests submitted.

Automated notifications tailored to specific events and having the information always accessible improves communication by enabling users to take necessary action on an item in real time.

Metrics / Dashboards

The EBSO has designed and developed several custom solutions for OP that optimize available contract and acquisition resources and provide an automated method to present near real-time data to all levels of users and leadership. These tools provide a more streamlined and efficient mode of collecting, integrating, & analyzing data from multiple acquisition and contract systems. Tools created include the PALT+ Report/Dashboard and FPDS Summaries Report. These leaps of technology and capability finally provide OP leadership the insight and data needed to make mission critical decisions.

The EBSO has designed and developed several interactive dashboards that have the capability to provide near real-time access to authoritative data sources to alleviate issues with data integrity. These dashboards afford OP the ability to deliver concise and consistent answers to both internal and external taskings, thorough data analysis, and communicate with the Enterprise a cohesive message. Recent developments include:

- NASA at a Glance: A high-level view of Agency contractual performance
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- CAR Anomaly Dashboard: Areas of consideration to make consistent data practices and entry into a system of record that is mandated by the FAR

PALT/Baseline Performance Review (BPR) Improvements

The EBSO reviewed procurement data for FY16-FY22 encompassing over 37K contract actions totaling over $20 billion annually. The team provided creative critical solutions to the FY22 BPR submissions. Using EBSO created reports, centers were able to correct data (solicitation dates in particular) on contract actions allowing NASA to minimize the impact of poor data quality in the systems on NASA PALT. These efforts were tremendously successful as NASA lowered the PALT from the previously reported 325 days for FY21 to 96 days for FY23 if the same data was pulled today. This allowed NASA OP Leadership to maximize resources in areas of identified need and report to Office of Federal Procurement Policy accurately.

Liliana Villarreal christens the Crew Module Test Article (CMTA).

Karla Smith Jackson touring Ames Research Center (ARC).

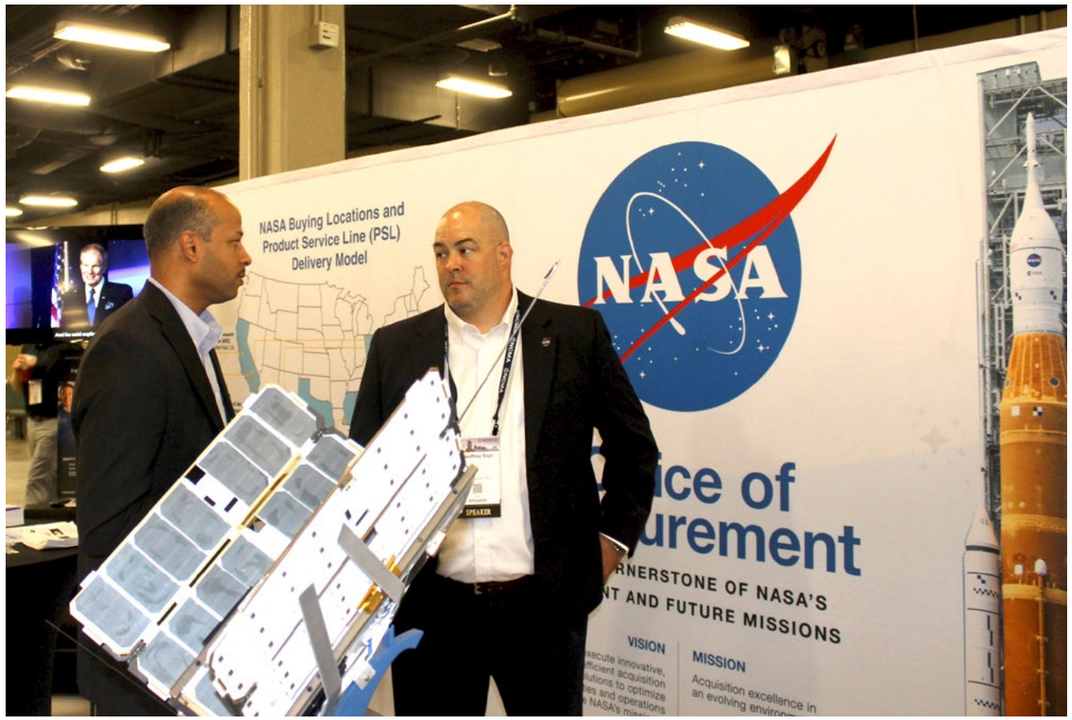
Enterprise Pricing Office (EPO)

The Enterprise Pricing Office (EPO), established in August 2022, is responsible for streamlining of contract closeout, audit services, cost/pricing policies, processes, the cross utilization of cost/pricing resources and training across the enterprise as it relates to complex cost/price related actions. EPO serves as a sustainable architecture that promotes an environment of pricing innovation that offers pragmatic pricing solutions that will offer timely and realistic negotiations to ensure the best possible fair and reasonable prices are achieved across NASA's Enterprise.

EPO currently provides oversight and pricing advisement in contract actions exceeding $50 million, participating in external engagements, and contributing to initiatives such as the HBCU/MSI Acquisition Support Education Program. Notably, EPO has successfully supported over 51 Source Evaluation Boards (SEBs) with a total value of $58.3B, and 37 Sole Source Actions with a total value of $46.3B during FY23. EPO's portfolio is responsible for streamlining contract closeout, audit services, cost/pricing policies, processes, the cross utilization of cost/pricing resources, and training across the enterprise as it relates to complex cost/price related actions.

EPO Communication Plan

The EPO utilized a multifaceted communication strategy involving roadshows and center visits to effectively inform and engage a diverse audience about its services. This approach facilitated direct connections with procurement professionals, managers, and program managers, fostering personalized and interactive dialogues. By physically reaching different locations and audiences, including center visits, the EPO increased awareness and comprehension of its services, showcasing a commitment to tailored solutions. This strategic mobility emphasized transparent communication, strengthened relationships, and contributed significantly to the lasting growth and success of the Enterprise Pricing Office. The introduction of Pricing Liaison Advocate (PLA) Representatives further enhanced communication by providing dedicated points of contact for overseeing cost/price activities and addressing inquiries.



Marvin L. Horne and Geoffrey Sage in the NASA booth at NCMA World Congress 2023 in Nashville, Tennessee.

Several EPO "sub teams" were created to give EPO personnel an opportunity to participate in the successful launch of EPOs vision into reality.

EPO sub teams created to date are the following:

- **The Process Improvement Team** charged with reviewing and developing cost/pricing guidance and processes for the Agency, such as work instructions, templates, and pricing policy to be utilized across the NASA Enterprise. Enterprise products will ensure all NASA Centers are operating within the same framework by establishing uniform price/cost evaluation methodology and resulting documentation of cost/price analysis performed. This team expeditiously and successfully completed the release of all Firm-Fixed Pricing (FFP) Related Templates, Sample L&M Language, Independent Government Cost Estimate (IGCE) Templates, Pricing Assistance Request Form, Price/Cost Proposal Analysis Techniques.
- **The E- Team** charged with maintaining all pricing content on the Office of Procurement website and collaborating with the E-Business Systems Group to ensure all NASA contracting professionals have access to the latest pricing information, guidance, templates, and leadership contact information. In addition to EPO web services, this team provides recommendations to management for all proposed/recommended software to be used by the EPO. This team expeditiously and successfully completed EPOs website and it went live November 14, 2022.
- **The EPO Monthly Forum Team** charged with developing and maintaining a format and content for monthly forum cadence. These efforts and content are intended to maximize the opportunity for enrichment of the EPO staff for both professional and personal use and application. EPO has held successful forums and received positive feedback from staff members.

Office of Procurement team members pose for a photo.

EPO governing practice and policy that was established and released during FY23:

- **NASA FAR Supplement: Appendix D** - Enterprise Pricing Procedures: This appendix contains policies and protocols regarding the use of the Enterprise Pricing Office to obtain pricing support services, applicable throughout the OP Enterprise. This document establishes a framework that encourages an atmosphere of innovative pricing and thereby providing practical pricing guidance to enable prompt and sensible negotiations, ultimately resulting in the attainment of the most equitable and reasonable prices across NASA's enterprise.
- **EPO Coordination and Approval Matrix (CAM):** The EPO Coordination and Approval Matrix (CAM) for pricing offers a structured framework that streamlines pricing processes, benefiting organizations in various ways. This matrix serves as a clear roadmap, outlining steps, stakeholders, and decision-making processes for internal pricing review and concurrence. It ensures consistency and standardization, promotes transparency among stakeholders, enhances efficiency by defining responsibilities and approval levels, mitigates pricing errors and non-compliance risks, improves pricing decision quality, aligns decisions with strategic goals, allows for flexibility, empowers employees, and maintains comprehensive pricing records. In summary, the CAM for pricing enhances consistency, transparency, efficiency, risk management, compliance, and strategic alignment, ultimately contributing to overall mission success across the organization.

EPO's Notable Achievements for FY23:

- Pilot of Vendor Manager Role which ensures that vendor interactions are strategically managed, leading to more favorable terms and pricing agreements. Moreover, having a dedicated role for cost and price analysis will enhance accuracy, mitigate financial risks, and ultimately contribute to better decision-making.
- The EPO website was launched and serves as an invaluable resource for the procurement community to engage with the EPO for requesting services, finding templates and tools, and finding applicable training for a particular acquisition.
- Successful release of timely pricing policy as it relates to inflation and the economic price adjustment, Appendix D, and the CAM
- Enhanced and increased collaboration with other federal agencies and internal organizations such as the Strategic Investment Directorate (SID) in the cost/price arena

Contract Audit Services

In 2016, NASA Headquarters Office of Procurement assumed its role of Cognizant Federal Agency (CFA) pursuant FAR 42.003 Cognizant Federal Agency. NASA's role as CFA optimizes procurement related functions by extending the Agency's intimate knowledge beyond a singular contract but onto that of the contractor. In this role, OP is providing a platform that caters to the Agency's needs by providing its own audit and contract administration services that will contribute to timely and quality audits yielding cost savings and timely contract closeout. In this role, NASA is CFA for approximately 153 contractors to date and is responsible for performing four specific functions related therein: negotiate forward pricing rate agreements, establishing final indirect rate and billing rate agreements, resolving cost accounting standards, and determine the adequacy of the contractors accounting system.

As CFA, NASA HQ OP expanded its contract audit service provider network creating a competitive market in which previously only Defense Contract Audit Agency (DCAA) existed. NASA currently procures contract audit services from DCAA, Department of Interior (DOI), and seven independent CPA firms to aid in timely contract audits. HQ OP established rules of engagement with partnering agencies and maintains continued collaboration to eliminate duplication of effort.

All inquiries regarding NASA's role as CFA and contract audit services can be sent to hq-dl-op-nasa-contract-audit@mail.nasa.gov.

Members of the OP workforce attend the 2023 NCMA World Congress in Nashville, Tennessee.

Members of the OP workforce in the NASA booth at NCMA World Congress 2023 in Nashville, Tennessee.

Priorities and Initiatives

Implement contracting solutions that enable NASA to achieve its mission.

Reduce Procurement Lead Times

Assist and support Agency efforts to improve management of the Procurement Portfolio Model.

Increase use of Category Management principles when buying common goods and services.

PROCURE

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

Artemis Gateway Solar Array.

Photo credit: NASA / Alberto Bertolin

Procurement Accomplishments

U.S. Geographical Distribution of Awards

In FY23, 52 locations including District of Columbia and Puerto Rico participated in NASA's direct awards. The categorization of NASA procurements by state is based on the location where the items are to be produced or supplied from stock, where the services will be performed, or, with respect to construction contracts, the construction site. This table excludes awards outside the United States and awards that, for a number of reasons, may not have a place of performance listed.

U.S. Geographical Distribution of NASA Awards:

Place of Performance State	Total Actions	Total Dollars
Alaska	118	$24,856,658.05
Alabama	1,504	$1,855,372,495.90
Arkansas	30	$2,299,851.77
Arizona	806	$175,291,856.41
California	5,981	$5,364,873,781.34
Colorado	1,514	$902,598,626.73
Connecticut	278	$26,309,570.46
District of Colombia	878	$177,123,519.87
Delaware	128	$18,205,183.44
Florida	1,863	$1,385,943,265.52
Georgia	250	$27,586,757.64
Guam	3	$156,537.12
Hawaii	145	$24,926,329.82
Iowa	113	$21,846,057.15
Idaho	55	$5,050,506.68
Illinois	321	$46,072,531.00
Indiana	249	$171,740,018.69
Kansas	151	$29,593,133.56
Kentucky	118	$24,856,658.05
Louisiana	1,504	$1,855,372,495.90

Massachusetts	1,175	$196,766,636.13
Maryland	2,998	$2,350,104,803.96
Maine	51	$17,377,173.93
Michigan	484	$35,304,698.59
Minnesota	172	$10,435,778.86
Missouri	174	$27,469,483.90
Mississippi	599	$238,734,913.11
Montana	89	$13,024,146.08
North Carolina	235	$19,315,372.96
North Dakota	27	$3,736,879.78
Nebraska	40	$2,684,280.60
New Hampshire	285	$36,465,545.50
New Jersey	329	$33,518,355.94
New Mexico	154	$17,898,842.50
Nevada	95	$5,193,745.56
New York	785	$128,363,227.93
Ohio	1,363	$213,653,871.64
Oklahoma	93	$32,561,240.30
Oregon	148	$17,344,139.66
Pennsylvania	534	$117,163,522.21
Puerto Rico	26	$4,563,055.19
Rhode Island	76	$7,752,145.01
South Carolina	100	$7,263,995.89
South Dakota	30	$3,711,839.84
Tennessee	133	$35,633,439.63
Texas	2,145	$1,450,143,534.51
Utah	156	$147,702,731.13
Virginia	2,805	$1,430,543,096.93
Virgin Islands	4	$251,130.30
Vermont	24	$2,711,548.86
Washington	315	$497,536,411.35
Wisconsin	207	$21,022,391.38
West Virginia	124	$46,293,750.65
Wyoming	27	$2,625,207.35
	30,609	**$17,461,120,513.00**

Awards by Contract Type

The table below depicts the magnitude of types of contracts.

Awards by Contract Pricing Type
(does not include Grants & Agreements)

Type of Contract Pricing	Actions	Dollars Obligated	% of Total Obligations
COST NO FEE	571	$600,294,739.78	2.85%
COST PLUS AWARD FEE	1,450	$5,856,157,804.79	27.85%
COST PLUS FIXED FEE	5,265	$5,915,603,121.90	28.13%
COST PLUS INCENTIVE FEE	258	$1,157,053,742.57	5.50%
COST SHARING	67	$17,739,327.86	0.08%
FIRM FIXED PRICE	16,324	$7,073,755,542.55	33.63%
FIXED PRICE AWARD FEE	12	$1,589,030.79	0.01%
FIXED PRICE INCENTIVE	16	$257,354,229.02	1.22%
FIXED PRICE LEVEL OF EFFORT	22	$44,164,819.34	0.21%
FIXED PRICE WITH ECONOMIC PRICE ADJUSTMENT	186	$9,073,308.05	0.04%
LABOR HOURS	9	$1,256,272.06	0.01%
ORDER DEPENDENT (IDV ALLOWS PRICING ARRANGEMENT TO BE DETERMINED SEPARATELY FOR EACH ORDER)	138	$18,297,368.88	0.09%
TIME AND MATERIALS	302	$78,731,538.86	0.37%
	24,620	**$21,031,009,029.85**	

Frank Rubio peers out a window aboard SpaceX Dragon Freedom.

Photo credit: Bob Hines

Notable Mission Procurements

Space Launch System (SLS)

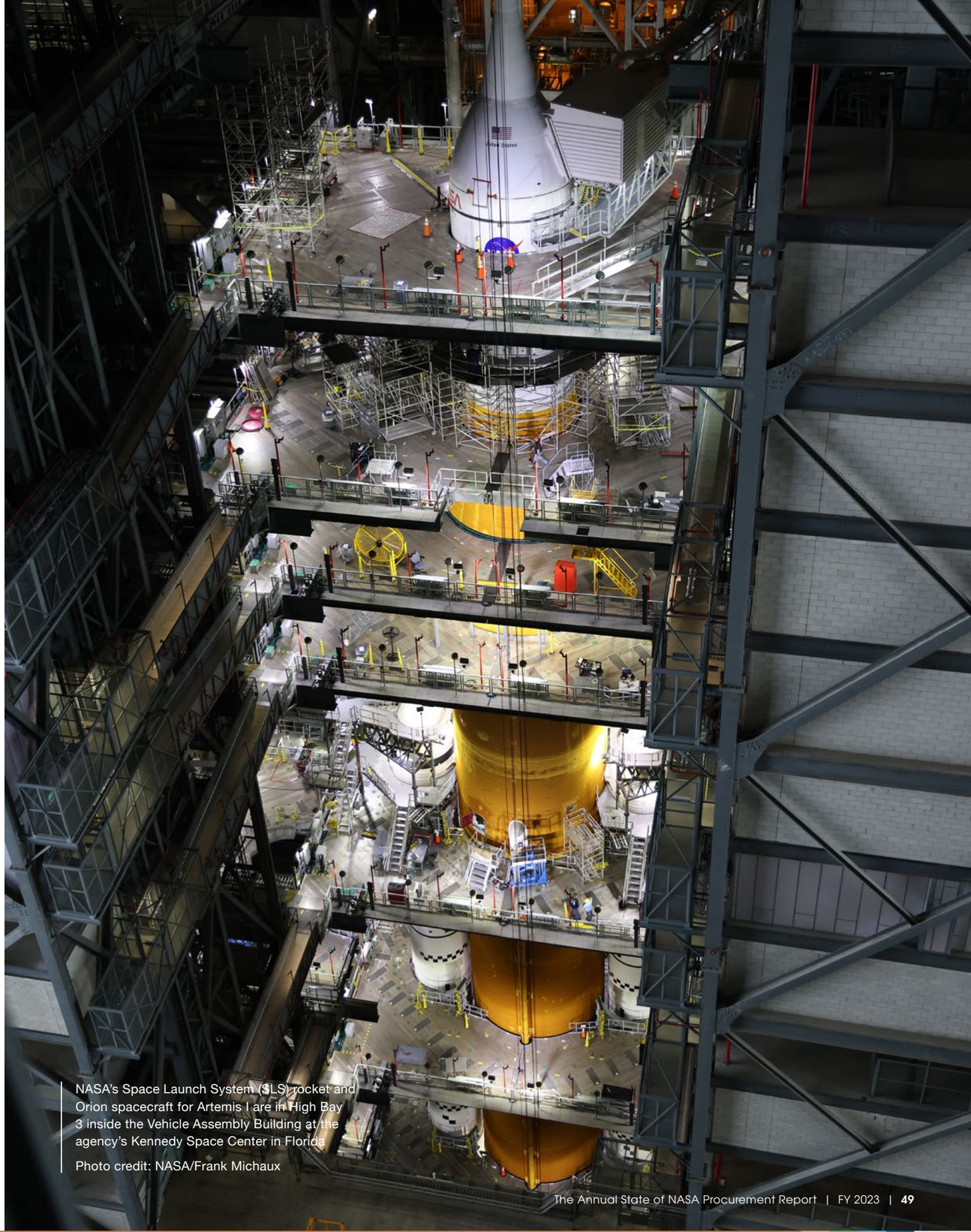
NASA's Space Launch System, or SLS, is an advanced launch vehicle that provides the foundation for human exploration beyond Earth's orbit. With its unprecedented power and capabilities, SLS is the only rocket that can send Orion, astronauts, and large cargo to the Moon or beyond on a single mission. The SLS Block I launch vehicle configuration is made up of two 5-segment Solid Rocket Boosters (Boosters), a Core Stage (CS) with four RS-25 engines, an Interim Cryogenic Propulsion Stage (ICPS) with one RL10 Engine, and a Launch Vehicle Stage Adapter (LVSA) which is procured at MSFC, and an Orion Stage Adapter which is made by MSFC. The primary accomplishment this fiscal year was the successful launch of the Artemis I mission on November 16, 2022, of the SLS Block I configuration. The SLS Procurement Support Division's management of a contractual portfolio valued at nearly $30B served as a key enabler for this and planned future launches.

There are two SLS Boosters contracts supporting SLS. The first contract includes the Design, Development, Test, and Evaluation (DDT&E) of the Booster for SLS, and the production of three booster sets for Artemis I through III which was awarded in 2007. The second contract, awarded in November 2021, is for the DDT&E for an advanced Booster for SLS Block II with the production of one booster set for SLS Block II, and five additional Booster sets for Artemis IV through Artemis VIII in support of SLS Block IB. The SLS Boosters for Block I and Block IB utilize heritage hardware produced for the Space Shuttle Program.

SLS stages includes the massive SLS core stage (CS), 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) which will replace the ICPS for Artemis IV and beyond for the SLS Block IB and II configurations. The EUS employs four RL10 engines in lieu of one RL10 for ICPS and will provide greater propulsion capabilities for deep space missions. This year's definitization of the SLS Production and Evolution Contract (SPEC) provides for production of up to 10 more CS and up to eight more EUS. Propulsion for each SLS CS is provided by four RS-25 engines; the first 16 of those are heritage hardware from the space shuttle program (SSP) and will be used for Artemis I through IV missions. The RS-25 engine contact includes the restart of the RS-25 engine production line utilizing advanced manufacturing methods to reduce the production costs of the engines and the production of 40 RS-25 engines. This is especially important since these engines will no longer be re-utilized but will be consumed through re-entry of Earth's atmosphere of the CS.

Propulsion for ICPS and EUS is provided by the RL10 engines. The first ICPS unit used for Artemis I already contained an RL10 engine. For Artemis II through IV, the contract has production of firm-fixed-price hardware with engineering support to adapt the future deliveries for human flights utilizing the RL10 as it has not previously been used for human space flight.

To support launch of Artemis I, a multitude of contract actions were executed to ensure that critical launch activities were supported at Kennedy Space Center to include four additional wet dress rehearsals, one tanking test, two vehicle roll backs to the Vehicle Assembly Building due to weather delays and for hardware needs, and several launch attempts.



NASA's Space Launch System (SLS) rocket and Orion spacecraft for Artemis I are in High Bay 3 inside the Vehicle Assembly Building at the agency's Kennedy Space Center in Florida

Photo credit: NASA/Frank Michaux

Human Landing System (HLS)

The Human Landing System (HLS) is the lunar landing vehicle in the Artemis program which will return astronauts to the Moon. NASA initially selected SpaceX to develop a human landing system variant of Starship to land the next American astronauts on the Moon under Artemis III, which will mark humanity's first return to the lunar surface in more than 50 years. As part of that contract, SpaceX will also conduct an uncrewed demonstration mission to the Moon prior to Artemis III. In 2022, Procurement successfully developed and implemented the evolution of the initial lander towards a more robust and sustainable lander by planning, soliciting, and negotiating a sole-source modification to the SpaceX Next Space Technologies for Exploration Partnerships-2 (NextSTEP-2) Appendix H Option A contract awarded in April 2021 as the subsequent Option B modification includes requirements accommodating four crew members and delivering more mass to the lunar surface.

With this addition, SpaceX will provide a second crewed landing demonstration mission in 2027 as part of NASA's Artemis IV mission. The previous work on the Appendix H acquisition approach provided invaluable experience in close collaboration within the NASA procurement, programmatic, safety, and engineering communities which was able to be leveraged. Working collaboratively with these stakeholders, we were able to reduce the procurement lead-time to less than five months from development of the procurement strategy until the negotiation of the Option B modification with SpaceX. The resulting firm-fixed price, milestone-based modification value is $1.15B. The close working relationship and team-oriented environment amongst the stakeholders is a best practice in enabling a shorter procurement process.

NASA is pursuing two parallel paths for human lunar landers developed according to NASA's sustained requirements to increase the competitive pool of capable industry providers–the existing contract with SpaceX and another award made earlier this year. The NextSTEP-2 Appendix P, HLS

Members of the Human Landing System (HLS) team, Paul Jones, Sharrief Webber, Tabitha Nichols, Stacey Hadavi, and Anita Ayers, pose for a photo.

Sustaining Lunar Development (SLD), was a full and open competition available to all other U.S. companies to develop additional human landing system capabilities and includes uncrewed and crewed demonstration missions from lunar orbit to the surface of the Moon. The award was made to Blue Origin, LLC in May 2023. The total award value of this firm-fixed price contract is $3.4 billion. Blue Origin will design, develop, test, and verify its Blue Moon lander to meet NASA's human landing system requirements for recurring astronaut expeditions to the lunar surface including docking with Gateway, a space station where crew transfer in lunar orbit. In addition to design and development work, the contract includes one uncrewed demonstration mission to the lunar surface before a crewed demo on the Artemis V mission in 2029.

Tropospheric Emissions: Monitoring Pollution (TEMPO) Mission

On April 7, 2023, the world watched the launch of the Tropospheric Emissions: Monitoring Pollution (TEMPO) instrument out of Cape Canaveral, Florida. This is the first funded project in NASA's Earth Venture Instrument Program which includes small, targeted science investigations designed to complement NASA's larger research missions. The program is managed out of Langley Research Center (LaRC) and the LaRC Office of Procurement has supported this exciting new Agency endeavor through the award and administration of two separate contracts and an interagency agreement.

The highly successful launch is a culmination of over a decade of hard work and collaboration between NASA and multiple stakeholders to include the Principal Investigator at the Smithsonian's Center for Astrophysics, the instrument builder Ball Aerospace, and its commercial launch partners Maxar and Intelsat. This group of dedicated scientists, engineers, and administrative staff spent a large portion of their careers constructing and preparing TEMPO for spaceflight. Their hard work was recognized with the launch and spectacular first images from the instrument released in August 2023, which was quickly followed by the successful transition of the mission into full operations. TEMPO aims to create a revolutionary new dataset of atmospheric chemistry measurements from space and will be the first space-based instrument to monitor major air pollutants across the North American continent every daylight hour at high spatial resolution. This critical mission for the Agency demonstrates how NASA's goal to innovate for the benefit of humanity can be accomplished, as TEMPO will provide publicly available near-real-time air quality products that will be used to improve air quality forecasting. It's also one of the many reasons TEMPO was named as one of TIME's Top Inventions of 2023.

NASA team member prepares the agency's Psyche spacecraft for integration.

Photo credit: NASA / Isaac Watson

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. The Office of Management and Budget (OMB) sets annual, agency-specific goals for the Category Management Key Performance Indicators (KPIs) as required to achieve the government-wide KPI goals set by the president's management agenda.

The primary KPIs are SUM and Best-in-Class (BIC). SUM is the percentage of an agency's spending obligated on agency-wide (Tier 1), multi-agency (Tier 2) or BIC (Tier 3) contracts; or contracts awarded to socioeconomically disadvantaged small businesses. 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.

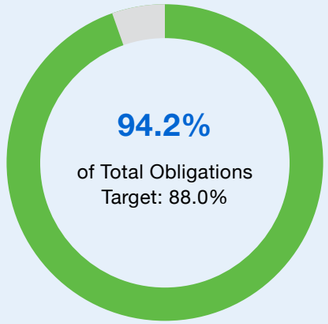
The use of tiered solutions saves agencies money and supports small business utilization, while reducing duplicate contracts and streamlining the acquisition process - making it possible for agencies to focus more resources on high-priority mission work. This allows NASA to free up resources to re-invest in facilities, information technology and other capabilities necessary to achieve its ambitious portfolio of missions.

On January 27, 2023, NASA's Senior Procurement Executive (SPE) issued a memorandum to NASA's contractor community to announce increased NASA utilization of Multi-Agency Contracts (MAC) and BIC contract solutions for common goods and services to the maximum practicable extent. The contractor community was strongly encouraged to consider participating in BIC and other MAC contract solutions, to include NASA Solution for Enterprise-Wide Procurement (SEWP).

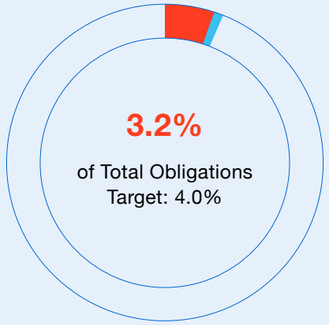
SpaceX NG-20 Launch

Photo credit: SpaceX

Spend Under Management



Best in Class Obligations



GWCM Training

OP's approach to the Mission Support Future Architecture Program (MAP) transformation involved the strategic organization of institutional services and a small subset of program/project support services into portfolios called Product Service Lines (PSLs) and the development of Enterprise Procurement Strategies for regional, central, or local procurement of PSLs by designated Procurement Offices. The strategies include mandates, codified in the NASA FAR Supplement, to utilize certain agency Tier 1, Tier 2, or Tier 3 acquisition solutions to satisfy PSL requirements.

As a result, in FY23 OMB granted NASA Tier 1 approval for PSL contracts and recognized NASA as a "model for development and implementation of a category management approach". NASA was also requested to lead an interagency learning series event on "Ideas to increase SUM," which included an audience of 250 people across 20 different agencies.

In FY23, NASA educated 756 individuals in category management practices, which represents 242.3% of the 312-trainee target set by OMB/OFPP. OP also obligated $8.3B in government-wide common spend categories in FY23. Of that $8.3B, NASA exceeded OMB's target of 88%, resulting in SUM of 94.2%. SUM obligations increased by $1B (total $7.8B) as compared to $6.8B (84.4%) in FY22. In FY23, NASA increased its BIC obligations by $68.2M (total $267.1M) as compared to FY22, which resulted in achievement of 3.2% BIC. NASA's SUM and BIC obligations in FY23 represent the highest achievement since inception of OMBs category management targets. This has enabled the Agency to streamline the procurement process, share resources and lower operating costs, as well as increase efficiency and effectiveness.

Refer back to page 12 for additional charts.

Product Service Line (PSLs) Update

NASA OP's transformation for institutional services involves a strategic approach to acquisition strategies. NASA's commonly procured goods and services (product service lines) have been aligned into 26 procurement portfolios. Each portfolio is managed collaboratively by the OP through the Procurement Portfolio Manager (PPM) and agency Functional Offices through an Enterprise Requirements Manager (ERM). Under this approach, the PPMs and ERMs developed Enterprise Procurement Strategies (EPS), in collaboration with Center Representatives, that focus on procuring regionally, centrally, or locally at one or more procurement offices. These strategies, as approved by the Assistant Administrator (AA) for Procurement and responsible Functional Office, enable the Agency to streamline the procurement process, share resources and lower operating costs. Each EPS is annotated in the NASA FAR Supplement (NFS) Appendix A-102: https://tinyurl.com/NASAFarSupplement/

PSL Status Summary

29 Contracts Awarded

25 NFS Strategies at end of FY23

13 Planned Awards FY24

Notable awards and actions during this period include:

Kennedy Space Center (KSC):

- $2.6B NASA's Consolidated Operations, Management, Engineering, and Test (COMET)
- $183M NASA Communication Services
- $46M NASA's Environmental and Medical Contract (NEMCON)

NASA Shared Services Center (NSSC):

- $400M NASA Transformational Shared Services (NTSS)

Goddard Space Flight Center (GSFC):

- $719M Omnibus Multidiscipline Engineering Services III (OMES III)
- $320M Repairs, Operations, Maintenance and Engineering (ROME)
- $298M Systems Engineering Advanced Services (SEAS) II
- $198M NASA Protective Services – Eastern Region (NPS-ER)

Lyndon B. Johnson Space Center (JSC):

- $540M CompreHensive Aircraft Readiness, Life cycle, Engineering and Support (CHARLES)
- $80M Environmental Compliance and Operations 3 (ECO3)

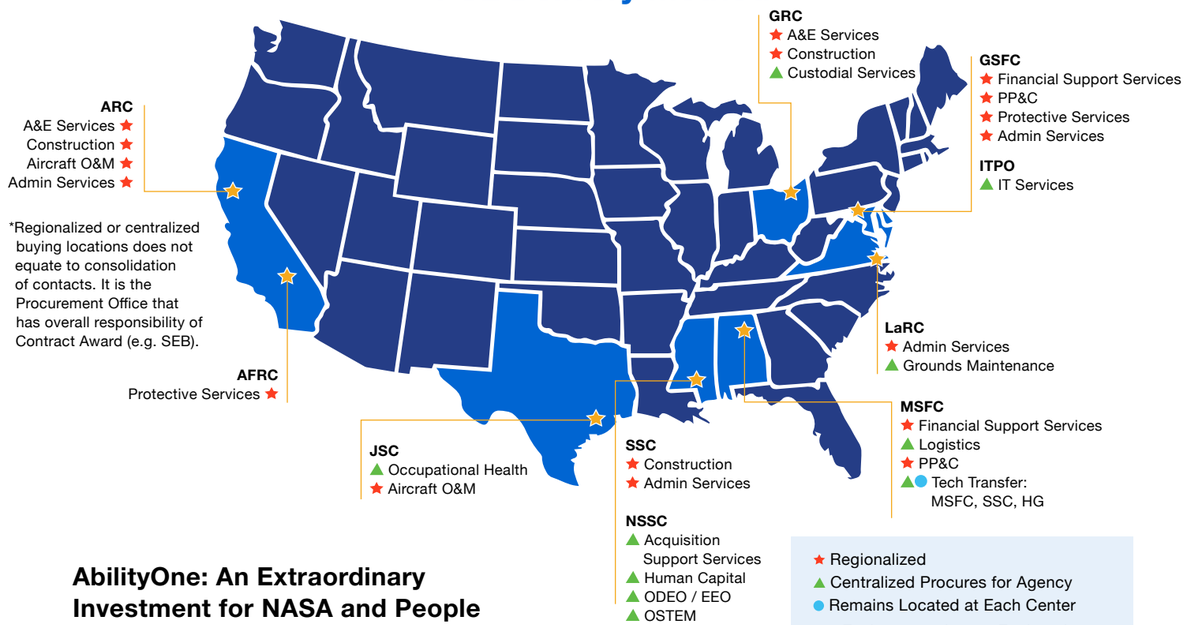
Langley Research Center (LaRC):

- $1.46B Research, Science, and Engineering Services (RSES)

Information Technology Procurement Office (ITPO):

- $860.6M Enterprise Multimedia and Integrated Technical Services (eMITS)
- $235.1M CISCO Multiple Award Blanket Purchase Agreement
- NASA Solutions for Enterprise-Wide Procurement (SEWP) BIC - Available Government-wide, total FY23 usage increased 17% from FY22 to over $12.2B in FY23 with 53,854 orders processed Government-wide. 92.5% of total order dollars were awarded to small businesses.

PSL Delivery Method



AbilityOne: An Extraordinary Investment for NASA and People with Disabilities

NASA is proud to support the AbilityOne® Program - one of the largest sources of employment in the nation for people who are blind or have significant disabilities. A 2023 study found that the Program provides extraordinary federal cost savings; the average federal return on investment is $2.66 for every $1 spent to administer AbilityOne.

Over 200 people with disabilities are employed on NASA AbilityOne contracts, resulting in over $2.3 million in total economic impact in Fiscal Year 2023. The Enterprise Services Center Support for NASA Shared Services Center contract at Stennis Space Center was recently awarded to AbilityOne, resulting in over 40 new jobs for people with disabilities. To engage with AbilityOne to meet your products/services needs, email Opportunity@AbilityOne.org.

OP was honored by Melwood during the Melwood Ability Awards to honor the change-makers who are impacting the representation and inclusion of people with disabilities in the workforce, community, and culture. NASA received the 2023 Impact Award for its leadership in directly improving accessibility and opening new spaces for people with disabilities in the federal workforce and beyond.

Sheila Roche, Karla Smith Jackson, and Lakeeta Young-Hill accept the 2023 Melwood Ability Impact Award on behalf of NASA from President & CEO of Melwood, Larysa Kautz.

PROCESS

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

Priorities and Initiatives

Enhance utilization of Enterprise information technology resources (e.g., Virtual Source Selection Tool, Acquisition Forecast).

Standardize procurement procedures and focus on delivering a common procurement experience (internal and external).

Establish and implement a robust Vendor Engagement Approach.

Establish the NASA Acquisition Innovation Launchpad (NAIL).

The Soyuz rocket is seen after being rolled out by train to the launch pad at Site 31, Tuesday, Sept. 12, 2023, at the Baikonur Cosmodrome in Kazakhstan.

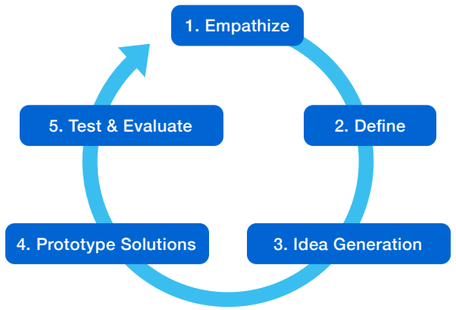
Photo credit: NASA / Bill Ingalls

Process Accomplishments

NASA Acquisition Innovation Launchpad (NAIL)

On January 12, 2023, NASA OP officially launched a first-of-its-kind procurement innovation program—the NASA Acquisition Innovation Launchpad (NAIL). Pioneered by Assistant Administrator Karla Smith Jackson, NAIL serves as a catalyst and hub for ideation, experimentation, and implementation of breakthrough procurement solutions by empowering all members of the acquisition process to explore new horizons, drive efficiencies, and find new and unique ways of doing business.

The NAIL applies NASA's culture of exploration and innovation to the acquisition life cycle using a design thinking framework based on the below elements.



Empathize: What are our current pain points?

Define the problem.

Idea Generation: Aggressive collaboration and refinement of ideas using divergent thinking techniques.

Prototype Solutions: Select and prepare for test cases

Test & Evaluate results

In the first two quarters of FY23, NASA OP established a NAIL charter, communication plan, logo formation, internal website, innovation intake form and process, and stood up an inaugural team aimed at putting the vision into action.

The NAIL team is currently being led by Dr. Jennifer Elkins, who is acting as Program Manager and Geoff Sage (ESAD) oversee all functions of the NAIL and provide top-level leadership on all initiatives. Dr. Elkins, assisted by detailees Brandon Lentz and Margaret Robinson, serve as the core NAIL team at the Headquarters level. Since program inception, 16 Innovation Representatives have been established at NASA Center and Field Offices and are working to advance innovation initiatives and share current innovations across the NASA enterprise and greater government acquisition community. All Centers were encouraged to create their own unique processes within the framework of the NAIL charter to facilitate innovations unique to their location, while also sharing and cross-pollinating ideas within the enterprise.

During the second and third quarters of FY23, the NAIL team worked diligently to gather and process submissions of over 55 initial innovations from across the Agency that included both current and potential innovation techniques and tools. The NAIL Team is currently cultivating a cohesive knowledge sharing strategy comprised of video shorts and one-pagers via an innovation repository to facilitate knowledge exchange. "Innovation Shorts" featuring NASA OP personnel and acquisition stakeholders can currently be viewed on the internal NAIL SharePoint site. The NAIL Team has also identified nine innovations for possible submission to the Periodic Table of Acquisition Innovations.

Industry Engagement

In its first year, NAIL has created an external facing website aimed at engaging industry partners in the process of acquisition innovation. NAIL also utilized a survey aimed at garnering industry interest in future focus groups for feedback and collaboration. This survey resulted in 68 responses. From these responses, NAIL established a set "Conversation Spaces", which will be rolled out in the second quarter of FY23.

Conversations Spaces include topics such as:

- Innovation in Reducing Barriers to Entry in NASA Procurement;
- Innovations in the Commercial Space;
- Innovation with Emerging Technologies and Non-Traditional Contracts;
- Utilizing Predictive Analytics and AI in NASA Acquisitions;
- Making Improvements in Business Relationships and Partnerships using Emotional Intelligence; among others.

Outreach

The NAIL team has held 16 roadshows and outreach activities at NASA OP field locations to promote and encourage innovation at all levels. In July of 2023, NAIL leadership shared the vision and progress of the NAIL at the NCMA World Congress in Nashville, TN to a combined industry and government audience. The NAIL team also made meaningful connections with other Procurement Innovation units across the government and plans to further cultivate those relationships for the benefit of share process improvement.

The 2023 Congressional Black Caucus Meet and Match – Minority, Industry Outreach Event.

Grant Accomplishments

Incorporating Grants in the A-123 Process

The Office of Procurement's Grants Policy and Compliance (GPC) Team, in coordination with the Office of the Chief Financial Officer (OCFO), developed an audit plan to include a compliance review of the grants monitoring process in the FY23 A-123 internal audit for the first time. The A-123 process now includes a review of the internal controls that are applied to NASA's $1B+ grants program, which allows the Agency to detect and mitigate potential deficiencies ahead of an external audit. During this year's assessment, OCFO's review highlighted a key manual process that exposes NASA to future external audit findings due to a lack of quality control, missing supporting justification documentation for decisions made, and overlooked and unperformed processes. As a result, GPC in conjunction with the NASA Shared Services Center (NSSC), modified the performance reporting approval process to include BOT assistance. This new automated process will automatically send progress report review reminders to Technical Officers and serve as the supporting justification documentation for approvals and/or denials.

Single Audit Monitoring

The monitoring of single audits reports is a critical component of ensuring oversight and compliance with federal-wide and NASA grant regulations, policies and award terms and conditions. NASA annually awards approximately $1B+ in grant funding with 433 of its grant recipients requiring annual single audit reviews due to their federal grant expenditures at or exceeding the $750K threshold. GPC reviewed 389 audit reports and identified 40 findings requiring resolution due to the impact to NASA grant awards. In FY23, GPC together with the NSSC, successfully brought 40 corrective action plans to resolution.

Government Accountability Office (GAO) Audits

The GPC co-led three Government Accountability Office (GAO) audits pertaining to NASA's grants management processes, two of which resulted in zero recommendations for NASA. The audits addressed 1) NASA's monitoring policy and process for FY22 earmark grants, 2) the Agency's policy and process for obligating FY23 earmark grant awarded, and 3) NASA's process for monitoring an earmark grant issued to Louisiana State University. The three earmark audits addressed 36 awards totaling over $53.4M. In addition to the first two audits being recognized as clean audits, GAO noted NASA as one of only two agencies with a multi-year appropriation to obligate 100% of their earmark funds.

Improvements to Acquisition Forecast

A known barrier to increasing underserved communities' participation in NASA grants is affording entities with sufficient time to prepare and submit grant applications. To afford entities more time to allocate resources to proposal development, GPC worked with the Enterprise Service and Analysis Division (ESAD) to integrate grant funding opportunities into the NASA Acquisition Forecast for the first time. GPC reviewed the Acquisition Forecast data entry module, identified how the module needed to be updated to accommodate grants data, and, once the Forecast was updated, provided guidance to NASA's grants community on how to enter funding opportunities into the system. In FY23, 10 of the Agencies' largest funding opportunities were added to the forecast, representing over $750M in research funding. As a result, the public has advanced notice of these funding opportunities, which allows them to strategically allocate resources for proposal development.

Vendor Engagement

NASA OP is committed to consistent and timely vendor engagement by the Senior Procurement Executive (SPE) and senior leaders across the Procurement Enterprise. This engagement is integral to NASA's ability to fulfill the mission.

NASA's Vendor Communication Plan includes specific pre-award and post-award engagement activities and is publicly available at https://www.nasa.gov/procurement-reports-and-guides/. NASA hosts and participates in a variety of engagement events to share information with vendors on the NASA organization and upcoming business opportunities. In FY23, OP participated in numerous events with industry as keynote speakers, panel members, or exhibitors. Several events were hosted by NASA's Office of Small Business Programs (OSBP), a key OP partner in expanding procurement's outreach to the business community.

In addition to traditional engagement methods, such as Requests for Information (RFIs), sources sought synopses, draft solicitations, and pre-solicitation conferences conducted by contracting personnel to obtain feedback from industry, NASA's Senior Procurement Executive (SPE) met quarterly with the Council of Defense and Space Industry Associations (CODSIA) and other Industry Associations and Councils to address questions and concerns.

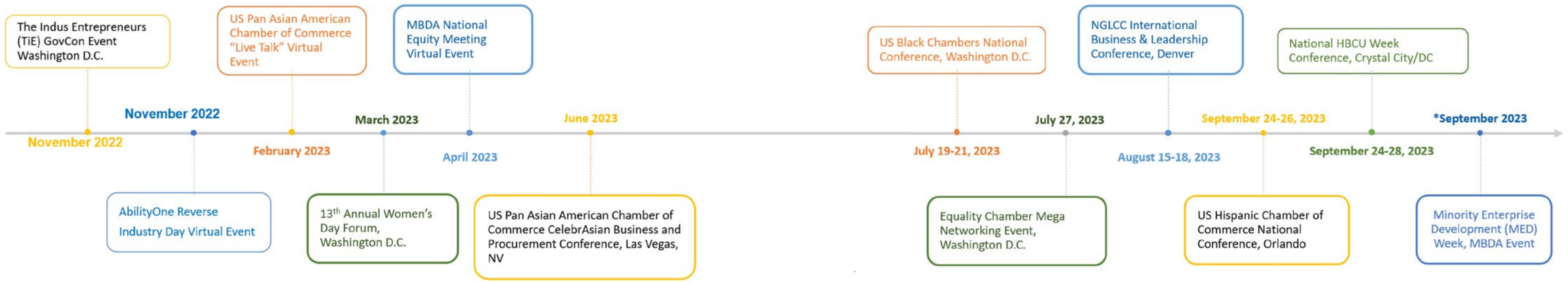
In July 2023, NASA again had a significant presence at the National Contract Management Association's (NCMA) World Congress Conference. NCMA World Congress is the nation's leading training event for contract management, procurement, and acquisition professionals from government and industry to engage in discussions, stay up to date on the latest trends in acquisition and learn new skills and strategies that will be needed for the future. Abstracts submitted by OP personnel were selected by NCMA leadership for development as conference breakout sessions. Sessions were attended by industry and government participants and provided the opportunity to highlight OP's key innovative strategies and processes occurring within the Agency.

Members of OP attend the 4th Annual Supervisory Leadership Forum in Nashville, Tennessee.

OP's "How to do business with NASA" page on the website provides resources for vendors to include the current NASA Acquisition Forecast and feedback mechanisms available to industry. https://www.nasa.gov/doing-business-with-nasa/.

The NASA Acquisition Forecast has data specifically included for the purpose of sharing relevant information with vendors (e.g., Product Service Code (PSC), planned type of award/contract vehicle). It also identifies large acquisitions for common goods/services. The Acquisition Forecast is consistently rated as user-friendly and most effective by vendors. NASA also maintained the highest rating of "Good" on the annual Professional Services Council's Federal Business Forecast Scorecard in 2023. NASA is 1 of 22 agencies with this rating out of the 60+ agencies reviewed (https://www.pscouncil.org/scorecard#Scorecard%20Full).

Karla Smith Jackson is featured on the NCMA Contract Management Magazine article "A Passion for Innovation Magazine," March 2023 edition.



Grant Outreach

The Procurement Grants and Policy Division (PGPD) participated in several events in 2023 to promote Diversity, Equity, Inclusion and Accessibility (DEIA) and to inform potential grant applicants about how to do business with NASA. These events targeted various affinity groups, such as women, minorities, Asian Americans, African Americans, and LGBTQI+ communities. While some OP events targeted under represented communities, all members of the general public were welcomed. GPC collaborated with other NASA offices, such as the Office of STEM Engagement (OSTEM), the Office of Small Business Programs (OSBP), and the Office of Diversity and Equal Opportunity (ODEO), to deliver engaging and informative sessions on NASA's grant opportunities, requirements, and best practices.

One of the marquee outreach events, hosted by PGPD/GPC, was the "Ask NASA: What to Know Before Applying" webinar, which was attended by 106 people from different underserved communities. This event featured a panel discussion with representatives from PGPD/GPC, ODEO, OSTEM, and the NASA Shared Services Center (NSSC), who answered questions from the audience about pre-award requirements, eligibility criteria, application processes, and evaluation methods. The panelists also shared tips and resources for preparing successful grant proposals and highlighted some of the success stories and challenges of previous grant recipients. The webinar received positive feedback from the participants, who appreciated the opportunity to interact directly with NASA experts and learn more about the agency's grant programs. The recorded version of the event currently has 3,726 views with 101 (100%) likes on the NASA Grants and Cooperative Agreements YouTube Playlist.

In total, PGPD/GPC participated in 11 events in 2023, reaching an estimated 5,806 people across different geographical regions and segments of society. These events helped PGPD/GPC to raise awareness of NASA's grant opportunities, to foster relationships with potential and existing grant applicants, and to support NASA's mission.

The Office of Procurement and the Office of Small Business Programs, NASA and Partners Small Business and HBCU Summit, Southern University New Orleans.

Procurement Management Reviews (PMR)

The Headquarters Office of Procurement uses the Procurement Management Review (PMR) process to meet various internal control requirements mandated at the federal and agency level. The purpose of the PMR is to advise the Assistant Administrator for Procurement of the effectiveness and efficiency of its procurement organizations in executing contracts in support of Agency missions. NASA Center Procurement Offices typically undergo a comprehensive PMR review every three years. The primary objective of the PMR is to perform compliance reviews of the Procurement Office's contracting actions and assess the overall health of the procurement organization. The review team focuses on adherence to procurement statues, regulations, policies, and procedures, and emphasizes assessment of systemic procurement processes rather than individual file anomalies.

The PMR Program is managed within the Procurement Grants and Policy Division (PGPD) at Headquarters (HQ). The team is comprised of subject matter experts from HQ, along with volunteers from NASA Procurement Centers. File reviews are conducted virtually and are typically two to three weeks in duration. An exit brief reviewing all findings is conducted at the conclusion of the event, and a final report is published. Centers are required to submit a Corrective Action Plan (CAP) to PGPD to address all Recommendations and Weaknesses noted. Quarterly CAP status updates are required until all actions have been approved for closure.

The PMR is a longstanding process within NASA OP, however 2023 saw many updates. A standard battle rhythm for center reviews was established to reinstate the three-year review cycle that was impacted by work environment disruption during COVID-19. A standard process for team deliverables was created to ensure consistency across all reviews. File review was expanded to include approximately 100 actions, of which the entire contract file (vs. specific documents) became required. The review content was updated to include additional special focus areas, such as Category Management and adherence to Department of Defense Inter-Agency Acquisition requirements.

The process of reviewing metrics, such as those within the Procurement Administrative Lead Time + (PALT+) system, Contract Action Reports, the NASA Acquisition Forecast, and Center Closeout data, was updated to include the entire population of available data vs. focus on specific files; this expanded dataset has provided a more wholistic view of center health. 2023 PMRs also saw the addition of in-depth review of center "Top 5" risk area contracts. Centers report on "Top 5" actions monthly, but the actions have not previously been reviewed in the PMR. Personnel interviews were instituted as a standard practice to accompany an online employee survey aimed at collecting feedback on the workforce environment (morale, ethics, communication, training, etc.)

PMRs were conducted on four (4) centers during 2023: Johnson Space Center (JSC), the NASA Office of Jet Propulsion Lab (JPL) Management and Oversight (NOJMO), Ames Research Center (ARC), and Glenn Research Center (GRC). As a part of these reviews, the PMR team documented "Best Practices" findings, which are those processes identified as strengths that can be shared across Center and Agency procurement organizations to promote efficiency and effectiveness in a particular area. 5 Best Practices were identified in 2023, highlighted below:

- Use of Microsoft Teams Channel within a center to post questions on specific contract issues. Reviewers noted that this "channel" was a safe space to ask questions to teammates without disruption. It is considered to be an avenue to help bridge the informal communication lost while working in a virtual environment.
- Use of Microsoft Teams Channel within a center to monitor employee training records / progress towards continuous learning point (CLP) completion. This offers employees and supervisors easy access to status and encourages personnel stay current on CLP requirements.
- Use of a Source Evaluation website, which includes guidance, sample templates and just-in-time training. This is an invaluable resource for source board participants.
- Use of a Coordination and Approval Matrix with detailed steps on document review requirements based on dollar threshold and action type.
- Use of a "Mirror" file drive, or mirror-image copy of center shared drive housing all contract files, for PMR. This mirror-image drive provides reviewers access to all files within the established structure and eliminates the need to locate or transfer files to another site for reviewer access. Eliminating this step reduces inefficiencies such as failure to move all pertinent files, time spent locating and moving files and review delays caused when additional files are requested if missing.

NASA astronaut Stephen Bowen and UAE astronaut Sultan Alneyadi on the International Space Station's starboard truss structure.

POLICY

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

Policy Highlights

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

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

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

NASA's PACE (Plankton, Aerosol, Cloud, ocean Ecosystem) spacecraft, atop a SpaceX Falcon 9 rocket, successfully lifts off from Space Launch Complex 40 at Cape Canaveral Space Force Station in Florida.

Photo credit: SpaceX

Policy Accomplishments

Made in America (EO 14005)

Executive Order (E.O.) 14005, "Ensuring the Future is Made in All of America by All of America's Workers" issued in January 2021, requires agencies to maximize the use of goods, products, and materials produced in, and services offered in, the U.S. NASA's Senior Accountable Official (SAO) for domestic sourcing is Margaret V. Schaus, Chief Financial Officer.

Accordingly, in FY23, the NASA Office of Procurement (OP) continued to work collaboratively with the Office of the Chief Financial Officer (OCFO) to ensure the Agency maximizes the use of American made products, goods, and materials under both procurement and financial assistance instruments.

In April 2023, OP hosted the National Institute of Standards and Technology Manufacturing Extension Partnership (MEP) for an OP Quarterly Webinar providing training to an audience of over 500 on MEP's National Network Supplier Scouting Service. The Supplier Scouting Service assists agencies with identifying American companies, including small-and medium-sized companies that are able to produce goods, products, and materials in the U.S.

OP also leveraged technology to advance the Made in America (MIA) initiative. An external facing MIA webpage developed in coordination with the NASA Office of Communications (https://www.nasa.gov/eo14005/) was launched in March 2023 to inform the public of the government's mandate to implement MIA procedures across all federal agencies and to provide insight on how NASA is complying with E.O. 14005. This was followed by the launch of the MIA Success Story Repository in May 2023.

The result of collaboration with OP's E-Business Systems Office (EBSO), the Repository, allows representatives from across the NASA workforce to enter details on an internal facing website sharing MIA success stories at New item | Made In America (MIA) Success Stories (sharepoint.com). These success stories will be used to share lessons learned and best practices across the Agency and with external partners; and in support of semiannual reporting to the Office of Management and Budget (OMB)'s MIA Office. Additional PGPD / EBSO collaboration led to completion of the MIA dashboard in August 2023 which enables NASA to more efficiently assess and improve the quality of MIA data entry; and to simplify reporting to OMB by aligning the data displayed in the dashboard with reporting requirements.

As a member of the FAR Council, NASA is actively engaged in the following active or anticipated FAR cases aimed at meeting the requirements of EO 14005 and the Infrastructure Investment and Jobs Act (IIJA):

- FAR Case 2022-004, Enhanced Price Preferences for Critical Components and Critical Items, will establish the definitive list at FAR 25.105 of critical items and critical components in the FAR, along with their associated enhanced price preference(s).
- FAR Case 2020-009 updates the non-available articles list at FAR 25.104(a).
- List non-availability waivers – Codify deviation in Civilian Agency Acquisition Council (CAAC) Letter 2022-01, dated November 16, 2021.
- Note public interest waivers – Section 70921(b) of the IIJA and Section 5 of EO 14005.
- Provide waiver transparency – Sections 70921(a)(3), 70936, and 70937 of the IIJA; Sections 4 and 6 of EO 14005.
- Define "end product manufactured in the United States" – Section 70921(d) of the IIJA.
- Remove domestic content test exemption for iron/steel (COTS) fasteners – Section 70922 (a) and (b) of the IIJA.

Pursuant to Section 11 of EO 14005, the head of each covered agency is required to report on compliance with, and waivers* to, domestic preference laws. NASA's Office of Procurement use of waivers reported in the Federal Procurement Data System in FY23 (Includes modifications to prior year awards) is as follows:

Exception	Actions	Obligations
Public Interest	0	$0.00
Domestic Nonavailability	52	$28,414,759.61
Unreasonable Cost	7	$2,500,163.00
Resale	6	$166,699.88
Commercial Information Technology	24	$748,274.60
Trade Agreements	24	$2,544,582.25
Use Outside the United States	17	$1,191,227.97
Total	**130**	**$35,565,707.31**

* "Waiver" means an exception from or waiver of Made in America Laws.

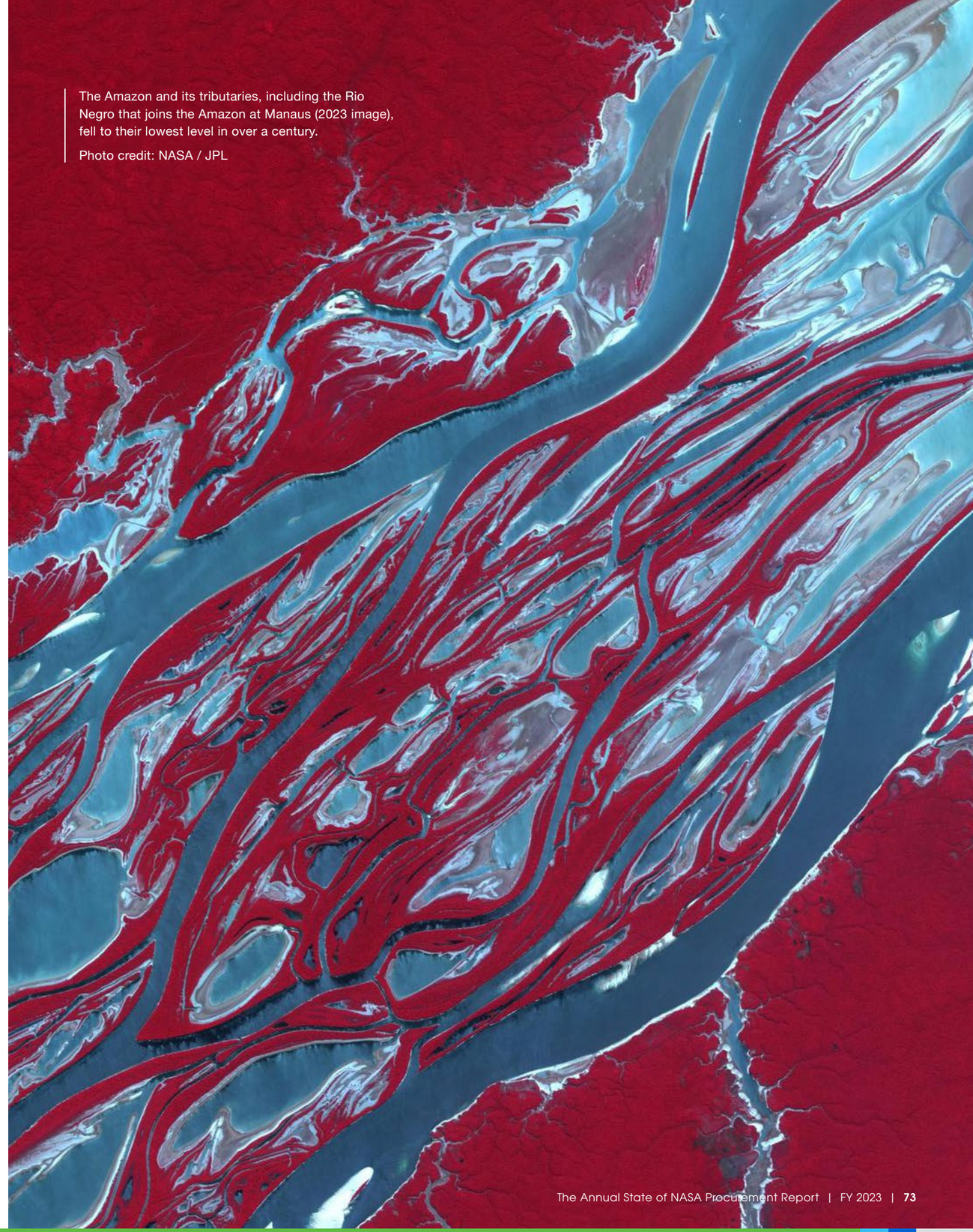
Information Technology Procurement Office (ITPO) and Solutions for Enterprise-Wide Procurement (SEWP) meeting.

Economic Impact for NASA

SourceAmerica AbilityOne contracts:

Number of FTEs*	217
Annual Contract Value*	$22,013,663

Line	Category	Estimated Average
A	Direct impact - reduced public benefits**	$1,209,267
B	Direct impact - additional tax revenue**	$988,667
C	Total direct economic impact (A + B)**	$2,197,934
D	Indirect impact - additional tax revenue***	$163,167
E	Total economic impact (C + D)	$2,361,101



The Amazon and its tributaries, including the Rio Negro that joins the Amazon at Manaus (2023 image), fell to their lowest level in over a century.

Photo credit: NASA / JPL

FY2023 FAR Cases

For FY 2023, the FAR Council published 18 rules; seven (7) proposed, one (1) interim and 10 final.

Type of Rule	FAR Case	Publication Date	FR Publication
P	2020-016 Rerepresentation of Size and Socioeconomic Status	9/29/23	88 FR 67189
P	2020-005, Explanations to Unsuccessful Offerors on Certain Orders Under Task and Delivery Order Contracts	8/9/23	88 FR 53855
F	2023-004, Small Disadvantaged Business Threshold	8/8/23	88 FR 53751
F	2017-014, Use of Acquisition 360 to Encourage Vendor Feedback	8/8/23	88 FR 53748
F	2022-008, Update to ASSIST Database References	8/8/23	88 FR 53754
P	2019-017, Training to Prevent Human Trafficking for Certain Air Carriers	8/7/23	88 FR 52102
P	2022-006, Sustainable Procurement	8/3/23	88 FR 51672
I	2023-010, Prohibition on a ByteDance Covered Application	6/2/23	88 FR 36430
F	2022-007, Removal of FAR Subpart 8.5, Acquisition of Helium	4/26/23	88 FR 25474
F	2022-002, Exemption of Certain Contracts from the Periodic Inflation Adjustments to the Acquisition-Related Thresholds	4/26/23	88 FR 25476
P	2020-010 Small Business Innovation Research and Technology Transfer Programs	4/7/23	88 FR 20822
F	2020-007, Accelerated Payments Applicable to Contracts with Certain Small Business Concerns	2/14/23	88 FR 9730
F	2019-008, Small Business Program Amendments	2/14/23	88 FR 9734
P	2021-015, Disclosure of Greenhouse Gas Emissions and Climate-Related Financial Risk	11/14/22	87 FR 68312
P	2021-012, 8(a) Program	12/15/22	87 FR 76598
F	2022-005, Updates to Title 10 Citations	12/1/22	87 FR 73894
F	2020-014 United States-Mexico-Canada Agreement	12/1/22	87 FR 73890 (correction 87 FR 76427)
F	2016-005, Effective Communication between Government and Industry	12/1/22	87 FR 73902

NASA Federal Acquisition Regulation (FAR) Supplement (NFS) Policy

NASA's Office of Procurement continues its endeavor to rigorously issue policy to effect change in progressively advancing topics while still cultivating changes in less progressive areas. In FY23 there were 18 NASA FAR Supplement (NFS) policy changes issued to address a broad range of topics from implementing new enterprise strategies for product service lines to ensuring clarity in acquisition planning approval authorities. Furthermore, NASA issued a final rule on September 19, 2023, to update NASA's Small Business Mentor Protégé Program (MPP). Specifically, the rule amended the NFS to include the Office of Small Business Programs' (OSBP) Small Business Specialist's concurrence on letters of endorsement for the MPP; incorporated requirements associated with mentors receiving credit towards its subcontracting goals; and decreased reporting burden by changing the MPP reporting requirements from semi-annually to annually. NASA also started the rulemaking process to implement changes to its evaluation of Total Compensation Plans (TCP) by proposing to remove the Agency specific provisions and emphasize the use of FAR Provision 52.222-46, Evaluation of Compensation for Professional Employees. Additional guidance such as templates and accompanying training will be provided to the acquisition workforce regarding sufficient evaluating methods.

The Office of Procurement diligently keeps abreast of Federal Acquisition Regulation (FAR) changes and their impact to the maintenance of the NFS. This fiscal year, the NFS was amended to conform to changes to Title 10 of the U.S. Code pursuant to a section of the William M. Thornberry National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2021 (Pub. L. 116-283). It is also being updated to conform to changes in the "commercial item" definition pursuant to a section of the John S. McCain National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019 (Pub. L. 115-232).

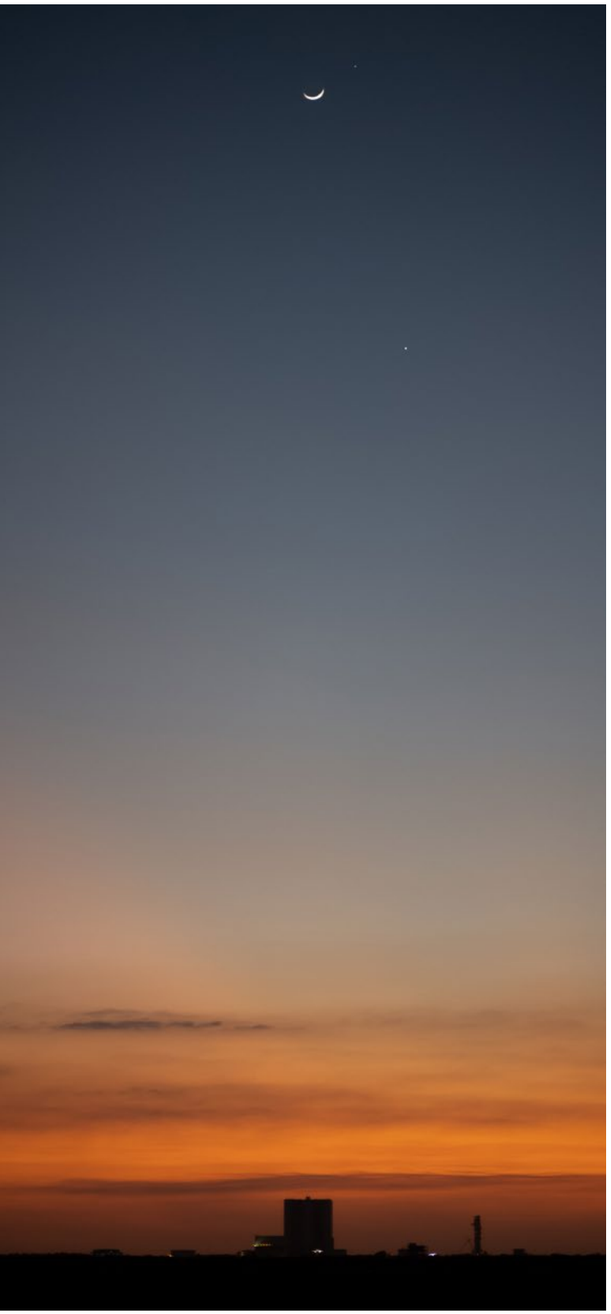
Procurement Control Board (PCB)

The Procurement Control Board (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 chaired by the DAA and implemented enterprise-wide (e.g., templates/guides/ processes that the buying offices use for daily operations) as well as agency-wide or regulatory procurement policy.

Through hard work and perseverance in 2023, the PCB developed, approved, and established a total of 97 enterprise-wide templates in 83 different topic areas that replaced 341 center templates previously used across the Agency in these topic areas. This resulted in an overall 72% reduction in Agency templates, implementation of a common experience, and streamlined the process.

In 2023, the PCB continued to approve standardized operational procurement policies and/or processes for implementation enterprise wide. For example, the PCB collaborated with the Office of Small Business Programs (OSBP) to develop and approve the "Determination to Waive the Requirement for a Subcontract Plan When no Subcontract Possibilities Exist" template. This template standardized process and format used by contracting officers when they determine that no subcontracting possibilities exist after conducting a thorough subcontract analysis.

In addition, three agency-wide templates were issued in support of policy changes related to contract type determinations and approvals: The Determination & Findings (D&F) Authority to Execute a Cost-Plus-Incentive-Fee (CPIF) contract, D&F Authority to Execute a Fixed-Price-Incentive contract (FPI), D&F Authority to Execute a Fixed-Price-Award-Fee (FPAF) contract. These templates assist with implementing a standard enterprise approval process for all three contract types.



Moon above the Vehicle Assembly Building at KSC.

Grants Policy and Compliance (GPC)

New Conflict of Interest Policy (COI): The Grants Policy and Compliance (GPC) Team, in coordination with the Office of General Counsel (OGC), Office of International and Interagency Relations (OIIR), NASA Shared Services Center (NSSC), and the Office of the Chief Scientists (OCS), released the updated grant and cooperative agreement Conflict of Interest (COI) policy. Policy development began in December 2020 with a final release of August 2023. The updated policy provides a detailed definition of COI and instructs grant recipients on when and how to submit COI disclosures to a NASA Grant Officer.

FY23 GCAM: GPC worked alongside Mission Directorates, OGC, OIIR, and the NSSC to develop and release the FY23 iteration of its Grant and Cooperative Agreement Manual (GCAM), which is the Agency' primary grants policy document. Thirty-two sections of the GCAM, spanning across the four phases of the grant's life cycle, were revised to provide robust guidance to aid in ensuring that NASA complies with federal grant regulations and statutes. FY23 GCAM guidance impacts approximately 800 unique grantee institutions and 1,000 NASA personnel, including Grant Officers, Technical Officers, Program Managers, and other grant process professionals.

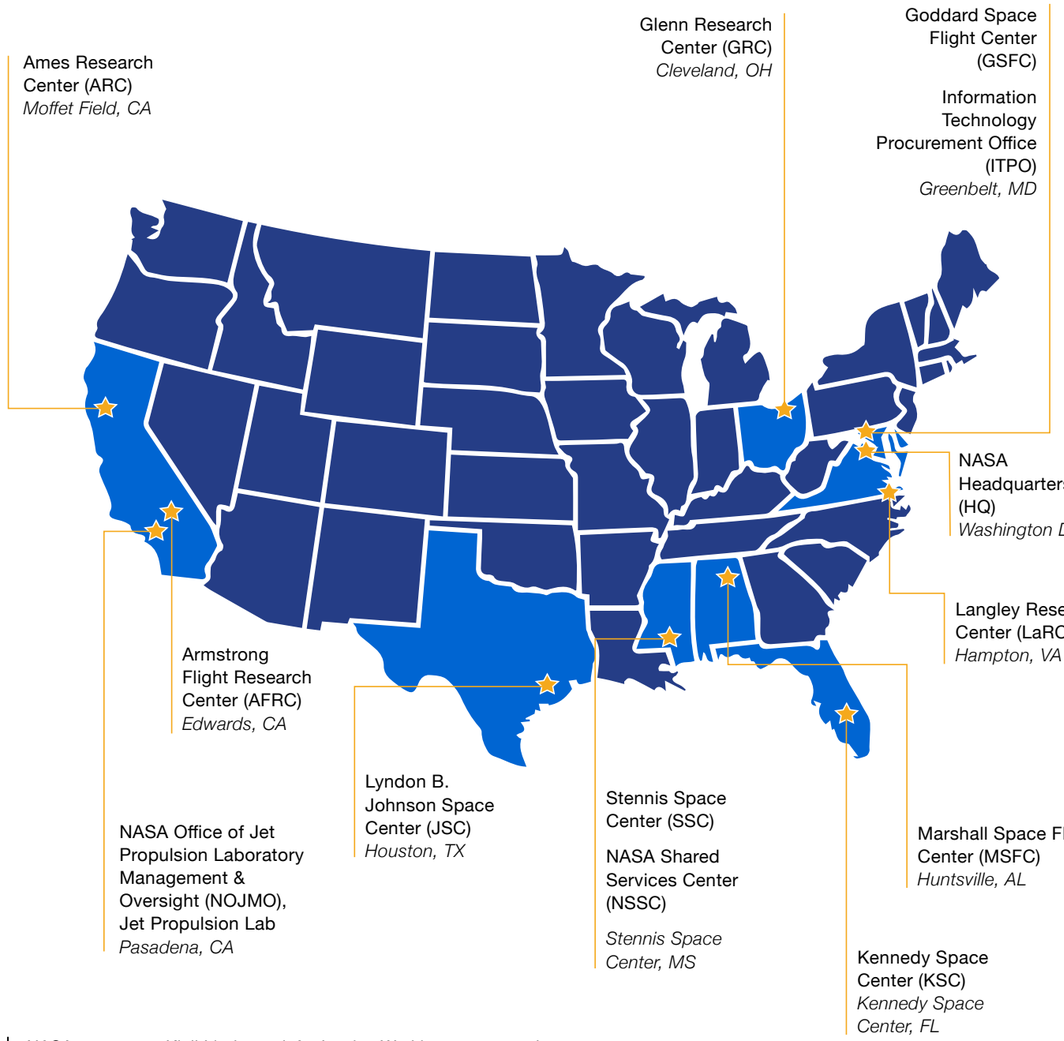
Proposer's Guide: GPC streamlined the way NASA's pre-award grant policies and procedures are communicated. FY23 saw the consolidation of two guiding pre-award documents—the Guidebook for Proposers Responding to a Notice of Funding Opportunity and the Guidebook for Unsolicited Proposals. This accomplishment was the first part of a larger multi-year strategy to consolidate the full grants life cycle into on manual to ensure consistency and standardization across NASA grants policy and will culminate with the inclusion of pre-award policies into the Grant and Cooperative Agreement Manual. The Proposer's Guide policies help ensure that NASA complies with Federal grant regulations and statutes in the pre-award process, and it impacts over 32,000 external stakeholders, 8,000 grant proposals, and 1,000 NASA personnel.

Sky over North Africa, taken from the International Space Station.

Photo credit: NASA

PROCUREMENT OFFICE LOCATION HIGHLIGHTS

Procurement Office Locations



NASA astronauts Kjell Lindgren, left, Jessica Watkins, center, and Robert Hines, right, are seen in the in the One World Connected gallery looking at an interactive recreation of the International Space Station's Cupola.

Photo credit: NASA / Joel Kowsky

Ames Research Center (ARC)

Moffett Field, California

Kurt Straub

Procurement Officer

About ARC

The NASA's Ames Research Center, one of ten NASA field centers, is located in the heart of California's Silicon Valley. Since 1939, Ames has led NASA in conducting world-class research and development in aeronautics, exploration technology and science aligned with the center's core capabilities.

Introduction

The Ames Research Center (ARC) Office of Procurement (OP) concluded the fiscal year successfully with timely closeout of all FY23 activities. As a workforce of 49 personnel, 933 actions were processed, obligating over $447M to ensure that ARC could continue operations without interruption.

Above: ARC aerial view

Left: Researchers at NASA's Ames Research Center in California's Silicon Valley complete a successful vibration test of the Neutron Spectrometer System or NSS, designed to sniff out water below the surface of the Moon, successfully sailed through a "shake" test to simulate the turbulent conditions of launch.

Photo credit: Dominic Hart

Notable Accomplishments

The Ames Research Center Procurement Division is changing the way it does business, essentially redefining their role in the SEB process through the following.

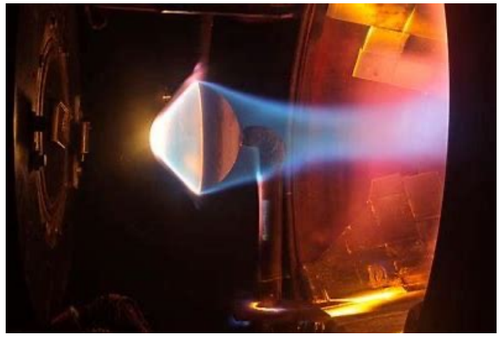
- Changed the format for SEB reporting and monitoring, adding more accountability for both our technical customers and our own staff. Meetings are now held to review status and any issues or obstacles.
- Added SEB language to SES performance plans, thereby incentivizing and rewarding those executives that adequately support their personnel that are serving on SEBs.
- Awarded a number of task orders in support of ARC's ArcJet facility, a one-of-a-kind facility that simulate atmospheric re-entry. The ArcJet facility is integral to all Human Spaceflight Missions.

Other notable accomplishments include:

- The ARC OP is fostering several new training opportunities for our staff by partnering with Glen Research Center (GRC) colleagues for a uniform, highly agile training program for new to NASA employees targeted at providing quick access and knowledge of their entire toolset at NASA.
- Clear expectations at the start of any procurement activity are now being conveyed to our technical counterparts and leadership to enhance our understanding and expectations of each other, and our respective roles in NASA's mission.

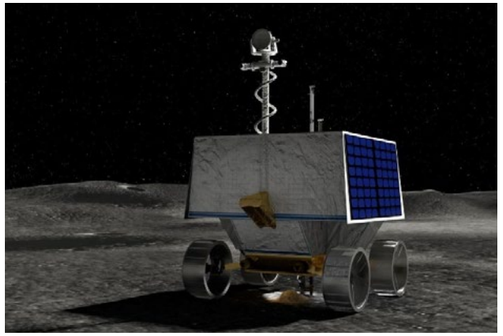
- ARC Procurement also continues to support the Center's various Aeronautical efforts including Advanced Air Mobility, Advanced Air Transport Technologies (AATT), and Revolutionary Vertical Lift Technology (RVLT)
- NASA Ames OP is supporting several science missions including Helioswarm, a series of contracts that will redefine and help improve our understanding of the dynamics of the Sun, the Sun-Earth connection, and the constantly changing space environment.
- NASA Ames has been tasked with a key role in the Volatiles Investigating Polar Exploration Rover, or VIPER. The rover will be part of the Artemis Mission, and Ames contracts support several components.

Overall, it has been a year of change for the ARC Office of Procurement, with many initiatives aimed at improving the level of support.



ArcJet

RVLT



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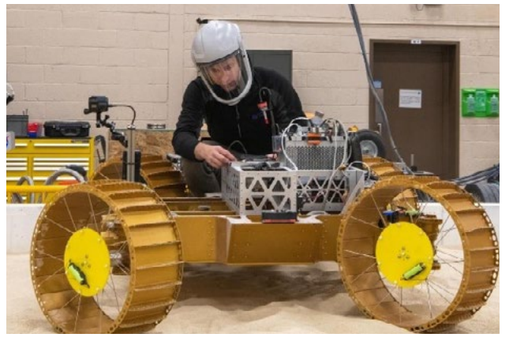


Opposite page: NASA Armstrong's ER-2 aircraft is uploaded with instruments for its ALOFT mission. The ER-2 will fly at high altitudes above the Floridian coastline to collect data about the energetic characteristics and behavior of lightning and thunderclouds.

Photo credit: NASA / Genaro Vavuris

Armstrong Flight Research Center (AFRC)

Edwards Air Force Base, Edwards, California

James Eastman

Procurement Officer

About AFRC

The mission of the Armstrong Flight Research Center (AFRC) is to: Advance Technology and Science Through Flight. This is accomplished by focusing on our priorities: Perform flight research and technology integration to revolutionize aviation and pioneer aerospace technology; Validate space exploration concepts; Conduct airborne remote sensing and science observations. Our unique role is to conduct high-risk atmospheric flight research and to do everything it takes to integrate complex systems into flight, and to do it safely.

Introduction

The Armstrong Flight Research Center (AFRC) OP had a year full of innovation, growth, and countless contributions to revolutionizing air transportation. In FY23, the Center workforce comprised of 20 personnel met all five small business goals and processed 590 actions, obligating over $244M.

Globe Hawk

Global Hawk Skyrange Program

Demonstration Engineering, Manufacturing, and Technical Support Contract

Since April 2017, NASA has managed the Global Hawk Skyrange Program at the Agency's Armstrong Flight Research Center (AFRC) in Edwards, California. AFRC moved from a cost sharing Space Act agreement with Northrop Grumman Systems Corporation (NGSC) of San Diego to awarding a five-year Cost Plus Fixed-Fee Indefinite Delivery contract, valued at $70.5M, in December 2020. This contract provides engineering, manufacturing, and technical support services for the program.

Skyrange is a Department of Defense (DoD) initiative to retrofit long-endurance unmanned aerial systems with advanced sensor and data management systems to support high-priority DoD flight tests. For the Global Hawk Skyrange program, AFRC works with the DoD's Test Resources Management Center (TRMC) in the operation of these Global Hawk Unmanned Aerial Vehicles (UAV), providing a unique national civilian capability to fly Government organization payloads on high-altitude, over-the horizon, and long-duration missions.

As of October 2023, AFRC has issued a total of four Task Orders totaling $59.4M in support of the program. Task Order 1 provided engineering support related to the integration of the High-Altitude LiDAR Atmospheric Sensing (HALAS) on the Global Hawk aircraft and a study to investigate the feasibility of upgrading to a newer version of the Integrated Mission Management Computer (IMMC) units. Task Order 2 provided engineering design, analysis, aircraft maintenance, and logistics support critical to the Global Hawk's payload integration and flight operations. Task Order 3 addressed the technical support related to the sensor integration of the Adaptive Phased-Array Antenna Technology (APAT) on Global Hawk aircraft. Task

Matthew Sanchez assembles wing ribs to the 10-foot model of the Transonic Truss-Braced Wing.

Order 4 performed a study on the conversion of the Block 20 Global Hawk aircraft to the Skyrange configuration.

Originally developed and produced by Northrop Grumman in 1998, NASA AFRC relies on NGSC's technical expertise on the Global Hawk UAV. This NASA AFRC contract with NGSC is set to expire in December 2025.

Glenn Research Center (GRC)

Cleveland, Ohio

Kurt Straub

Procurement Officer

About GRC

The NASA Glenn Research Center in Cleveland, Ohio designs and develops innovative technology to advance NASA's missions in aeronautics and space exploration. GRC and ARC are both overseen by Procurement Officer Kurt Straub.

Introduction

The Glenn Research Center (GRC) Office of Procurement (OP), made up of 39 personnel, concluded FY23 successfully by processing 1,526 transactions, totaling obligations of over $573M.

Throughout FY23, GRC onboarded 11 new employees and they took part in a new training program which has been adopted by the NASA Acquisition Innovation Launchpad (NAIL). Its goal is to help new employees become more productive and efficient through an immersive curriculum that familiarizes employees with their entire toolset. This approach is complementary to their FAC-C training and on the job training.

A tank is used in CryoFILL experiments to liquefy oxygen at minus 290 degrees Fahrenheit as it could be done on the Moon or Mars. The tests conducted at NASA Glenn Research Center, used Fiber Optic Sensing System (FOSS) developed by NASA Armstrong Flight Research Center, to measure oxygen temperatures inside the tank.

Photo credit: NASA / GRC / Bridget Caswell

Notable Accomplishments

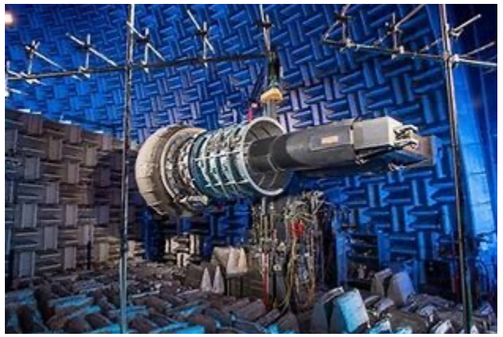
GRC had many notable accomplishments throughout the fiscal year, including the following:

- In July 2023, GRC Procurement became its own Directorate.
- The Procurement Directorate executed the award of Engineering Change Proposal (ECP) 19 to the Power and Propulsion Element contract with Maxar Technologies for approximately $290M, essentially re-baselining the contract. The Power and Propulsion Element Contract is essential to the success of the Gateway Project.
- Provided 12.6 Kilowatt thrusters fabricated under another contract by Aerojet as Government Furnished Property to the Power and Propulsion Element (PPE) effort.
- Awarded their Institutional Maintenance, Operations, and Repair (IMOR) Contract, combining two previous contracts that included maintenance and repair as well as pressure vessel recertification.
- Executed three custodial contracts on behalf of other Centers as part of the enterprise strategy for that product/service line.

In the Aeronautics realm, GRC successfully executed its HyTEC (Hybrid, Thermally Efficient Core) jet engine NASA Research Announcement, resulting in the award of six contracts, and successfully executed the Phase II of that same project. The HyTEC project is aimed at providing significant fuel savings, thereby making the aviation industry more sustainable and economically viable for years to come.

NASA Glenn's Acoustics Research Facility was used extensively to research quieter aircraft engines through the contracted technicians provided by NASA GRC's Test Facilities, Operations, Maintenance, and Engineering contract, for which OP is currently gathering requirements for a recompetition.

There is a lot of work that awaits the GRC staff in 2024, and the Directorate is excited to play key roles in both supporting the center and Agency missions.



Above: HyTEC jet engine

Opposite page: The Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) Observatory inside the Space Environment Simulator (SES) thermal vacuum chamber before thermal environmental testing at NASA's Goddard Space Flight Center in Greenbelt, Maryland on June 16th, 2023.

Photo credit: NASA / Denny Henry

Goddard Space Flight Center (GSFC)

Greenbelt, Maryland

Mary Stevens

Procurement Officer

About GSFC

Goddard Space Flight Center missions' support multiple scientific disciplines, including Earth science, solar science and the sun-Earth environment, planetary studies, and astrophysics.

Introduction

The Goddard Space Flight Center (GSFC) was established as NASA's first spaceflight center. Since then, GSFC has grown to one of the largest scientific organizations in the world, with more than 10,000 employees in total. Of that 10,000, 154 personnel make up the GSFC OP. In FY23, GSFC OP processed 2,717 actions, totaling over $3B in obligations.

Grow. Lead. Inspire. Develop. Excel (GLIDE) Professional Development

The Grow. Lead. Inspire. Develop. Excel (GLIDE) Professional Development Series for Continuous Learning began in May of 2023. Through this program, the Office of Procurement at GSFC offered a series of eight continuous learning courses in alignment with expressed interests of the procurement workforce and management team for the enhancement of professional and leadership skills in support of organizational initiatives. The program allowed participants to customize their selection of continuous learning courses to suit their individualized professional and leadership development needs and areas of focus. The courses made available are based on input from senior leadership as well as feedback from individuals that had previously taken classes on current areas of interest in the field of professional development. Courses offered include topics such as "Emotionally Intelligent Leadership", "Exploring Diversity, Equity, Inclusion, and Accessibility (DEIA)", "Fostering Accountability, Adaptability, and Resilience" and "Data-Driven Decision Making". Additional courses focused on building oral and written communication skills, as well as, building relationships and self-awareness in the workplace.

Enrollment is open to all on first-come first-served basis (subject to class size limitations) and participants who successfully complete three 3 or more courses receive a GLIDE professional development certificate of recognition. The GLIDE professional development certificate is intended for recognition of professional development through the pursuit of continuous learning and does grant additional CLPs.

Since the program's inception, a total of 14 employees, including an employee from HQ ITPO, earned the GLIDE Professional Development Series for Continuous Learning certificate of recognition. A total of 110 seats have been filled under the GLIDE series, with over 1,600 CLPs earned by participants at GSFC and HQ ITPO.

In the future, the GLIDE program is expected to expand to further professional growth by including additional courses and adding a variety of enhanced components for professional development.


MANAGEMENT CONCEPTS

Management Concepts Congratulates

Jane Doe

FOR SUCCESSFUL COMPLETION OF COURSES IN THE

2023 GLIDE Professional Development Series for Continuous Learning

Grow. Lead. Inspire. Develop. Excel.

Team members of GSFC's GLIDE program.

New Employee Group

The GSFC New Employee Group was created with the goal of welcoming our new employees in a collaborative environment which supports personal and professional career growth and development. This pilot program began in July 2023 and was tailored toward those employees that had joined the Goddard Office of Procurement during, or shortly thereafter, the pandemic and might not have had the typical new employee experience of the pre-COVID era.

There are currently over 30 employees in the New Employee Group which consists of those starting their career at GSFC within the last two years. Sessions are designed to keep new employees abreast of training requirements and resources, as well as, offering enjoyable opportunities for building bonds. The group meets quarterly, and these events include hosting collaborative events with the GSFC Management Operations Directorate Diversity and Inclusion (MODDI) Committee for new Office of Procurement and Management Operations Directorate employees from both Wallops and Greenbelt. These events include cohort engagement activities, team building, and facility tours which offer a great opportunity to learn about the exciting missions at GSFC and Wallops.

This pilot group will run through December 2023 and is expected to wrap up with practical advice from participants in NASA Leadership Programs and GSFC Employee Resource Group (ERG). As new employees continue to be on-boarded, this group will remain active.

GeoXO

In 2023, the GSFC Office Of Procurement's Code 172 (GOES, GeoXO, and Space Weather Division) embraced the use of streamlining acquisition approaches to ensure the timely procurement of critical sensors for the National Oceanic and Atmospheric Administration's (NOAA's) 6th generation geostationary satellite series.

The GeoXO Program is a NOAA-NASA partnership that consists of a series of six satellites operated in a constellation of three. This satellite series provides observational continuity that follows the Geostationary Operational Environmental Satellite (GOES)-R series. Data from GeoXO will contribute to weather forecast models, drive short-term weather forecasts and severe weather warnings. GeoXO will also detect and monitor environmental hazards like wildfires, smoke, dust, volcanic ash, drought, and flooding, and provide advanced warning to decision makers. The East and West spacecraft include the Imager, Lightning Mapper Instrument (LMX), and Ocean Color Instruments (OCX) and the Center satellite includes the Sounder, Atmospheric Composition Instruments (ACX), and a partner payload.

GSFC's Flight Projects Directorate, in support of NOAA, requires implementation and instrument development activities such as the design, development, integration, test, and delivery of the ACX, LMX, and OCX Instruments.

The procurement of the ACX, LMX, and OCX instruments would typically be treated as three independent efforts, operating on distinct timelines. However, due to aggressive launch dates and accelerated procurement timeframes, the schedules for these next generation weather satellites became aligned.

NASA astronaut Jonny Kim is seen as President Yoon Suk Yeol of the Republic of Korea meets with Korean-American employees during a tour of NASA's Goddard Space Flight Center, Tuesday, April 25, 2023.

Photo credit: NASA / Joel Kowsky

Opposite page: Goddard Space Flight Center aerial view

Solution: In the interest of efficiency and streamlining, the contracting team, in concert with the customer, employed several methods to consolidate the teams' efforts and ensure an expedited procurement. Specifically, the team took the following streamlining approaches:

- Instead of having three independent Procurement Strategy Meetings (PSMs), the team coordinated efforts to combine all three instruments into a single PSM. This approach yielded significant time savings as it minimized the amount of time spent on what would have been substantial overlap between the three efforts.
- Efforts were made to ensure that the three separate Requirements Develop Teams (RDTs) working on these efforts were working toward a common goal and to reduce any excess manpower that actually stood to slow the process. Each RDT Chairperson and Contracting Officer led the efforts to provide strategy information for their respective instrument that integrated seamlessly within the final PSM package. This hands-on approach enabled the reduction of staffing from approximately 15-20 RDT members to 6-8 members.
- During the PSM, the SSA realized that the proposed SEB members for each instrument included five to seven individuals who would be required to provide overlapping support for multiple SEBs. This prompted an action to eliminate some of the overlap and reconsider the number of voting members assigned to each SEB. Under a traditional approach, with separate PSMs for each instrument, this overlap, and large number of voting members may have gone unnoticed. However, by combining the acquisition strategies of the three efforts it became apparent that adjustments were warranted. Removing this overlap mitigates the risk of extended proposal evaluation times that would have come with individuals attempting to split time between multiple SEBs.

Information Technology Procurement Office (ITPO)

GSFC, Greenbelt, Maryland

Sarah Pollock

Procurement Officer

About ITPO

The NASA Headquarters Information Technology (IT) Procurement Office has agency-wide responsibility for providing guidance and support to NASA Centers, geographically dispersed across the United States, Headquarters Mission Directorates, and Mission Support Offices in planning, conducting and processing IT procurement actions above the Simplified Acquisition Threshold.

Introduction

The Information Technology Procurement Office (ITPO) is a geographically dispersed office made up of 35 personnel, including the NASA Solutions for Enterprise-wide Procurement (SEWP) Program. The NASA SEWP GWAC (Government-Wide Acquisition Contract) provides the latest in Information and Communications Technology (ICT) and Audio-Visual (AV) products and services for all federal agencies and their approved contractors. ITPO works in close partnership with NASA's Office of Chief Information Officer ICIO) in developing strategic approaches to acquiring and delivering NASA's IT needs. In FY23, the ITPO conducted 1,792 actions and $711M in obligations, including over $215M to small businesses.

During FY23, the ITPO made significant investments in workforce development, human capital initiatives, and process improvement efforts. The ITPO Senior Management set the vision for the workforce to include the importance of employee development and succession planning. Reinforced at monthly all-hands, employees were recognized, job opportunities were announced, and requests for volunteers were presented. A primary focus for the ITPO workforce continues to be the Digital IT Acquisition Professional (DITAP) Training Program where 14 of our Contracting Officers have been certified since commencement of ITPO operations in FY21, with five more to be certified in FY24. Further, the ITPO developed a robust succession plan that ensured numerous workforce development opportunities, strengthened core competencies, filled skill gaps, and developed future leaders. The ITPO pooled its training funds with Goddard Space Flight Center (GSFC) OP to maximize the number of non-contracting, general skill building, and leadership classes offered to staff. The ITPO formally recognized numerous employees and teams with contribution awards. The office is also planning its first ever face-to-face teambuilding and training event for early 2024.

On the process improvement front, the ITPO, in concert with the OCIO, sponsored a kaizen event designed to improve IT Procurements on Demand (ITPOD) awards (contracts between $250K and $7.5M). This activity led to reduced procurement lead-times and improved processes and templates, leading to mission success. Additionally, the office continues to focus on the transition of Center-based contract requirements onto the Agency's major enterprise IT contracts as part of the implementation of OCIO's Mission Support Future Architecture (MAP) Acquisition Strategy. The ITPO staff transitioned all, or part of, six Center-level contracts to enterprise contracts in FY23. A final initiative centered around the development and refinement of an innovative contract administration tool known as an Annual Service Plan (ASP), a required deliverable in our major enterprise IT contracts. The ASP outlines all work for the upcoming contract year, including the proposed resources and costs to perform the requirements outlined therein. The ASP concept is used in conjunction with a commercial contract administration tool known as iSITE. This tool performs the initiation, planning, execution, monitoring, reporting, and closeout of contracts and tasks orders, including performance metrics, risk management, document management, deliverables management, financial management, customized reporting, and agency specific reporting. In combination, the Annual Service Plan and iSITE have enabled the ITPO to reinvent and improve contract administration, increase government/contractor collaboration, and more efficiently administer enterprise, multi-center, and center-based contracts.

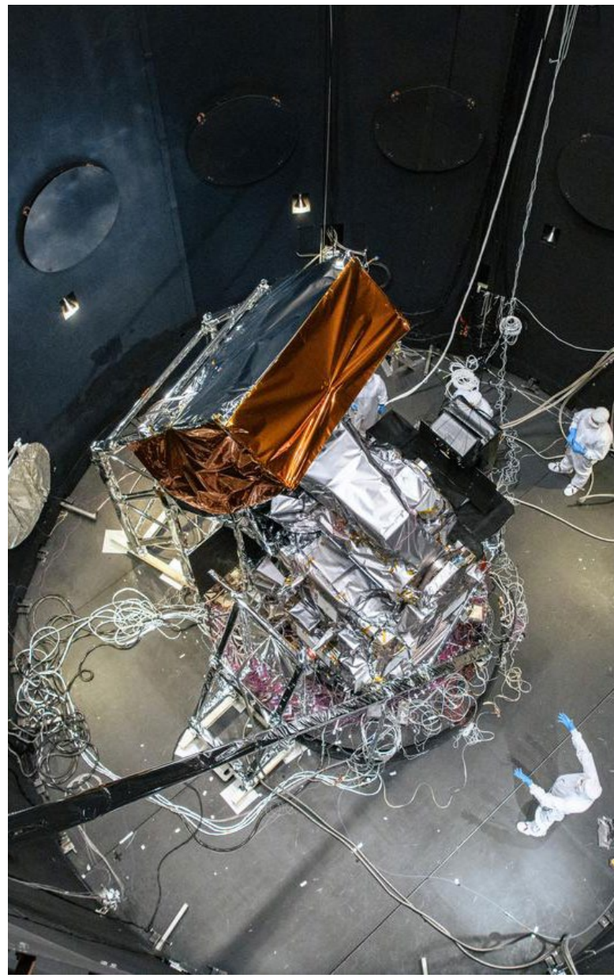
The ITPO staff made a significant drive to improve Diversity, Equity, Inclusion, and Accessibility (DEIA) through outreach and deploying contract mechanisms/deliverables. This includes (1) coordinating several guest speakers to cover DEIA as a special topic at our monthly ITPO Contractor Steering Council, (2) attending and presenting at numerous small business events and summits around the country, and (3) utilizing DEIA as an evaluation criterion in all our major procurements where offerors must address the inclusion of underserved communities as a part of their staffing approach.

Enterprise Multimedia and Integrated Technical Services (eMITS)

The Enterprise Multimedia and Integrated Technical Services (eMITS) contract consolidates approximately $814M of support for a broad spectrum of digital and physical communications products and services, IT Management, Governance, and Service Delivery in Agency-wide support of NASA's Office of Communications (OCOMM), Office of the Chief Information Office (OCIO), OCIO Service Lines, and their customers.

The eMITS contract implements a variety of innovative strategies with the goal of improving contract effectiveness and customer satisfaction, while also reducing cost risk to the government. The contract type is a hybrid, Cost-Plus-Award-Fee (CPAF), with CPAF and Firm Fixed Price (FFP) Indefinite-Delivery Indefinite-Quantity (IDIQ) Task Orders. The contract period of performance consists of an initial 90-day phase-in, followed by a 12-month base period, with seven 12-month option periods, as well as a six-month extension, which would extend the full period of performance to January 31, 2032, if all options are exercised.

The eMITS contract serves as a means for consolidating OCOMM and OCIO services currently provided by individual contractors at separate field centers with the dual intent of finding synergies and reducing duplication as well as aligning with agency initiatives. This strategy also increases NASA's Spend Under Management for Agency Strategic Sourcing Contracts. This enterprise contract seeks to increase collaboration, allow for the sharing of capabilities across all NASA Centers and related facilities, and supports the cross-utilization of employees.



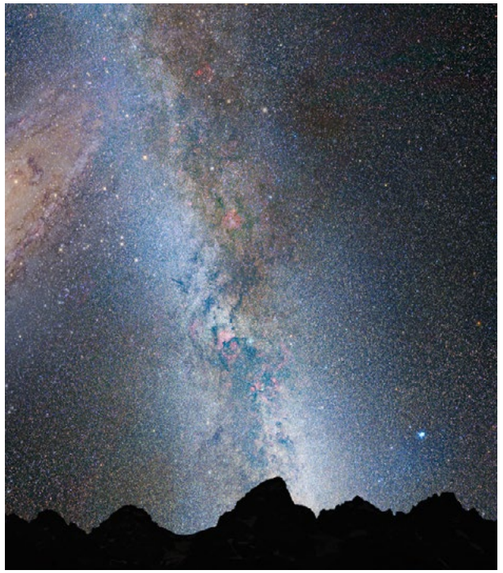
PACE in thermal vacuum chamber.

CISCO Blanket Purchase Agreement

The Cisco Blanket Purchase Agreement (BPA) is a small business set-aside, Multiple-Award Federal Supply Schedule (FSS) contract vehicle for the procurement of Cisco hardware, software, and support services, including hardware and software maintenance, proactive services, training, and e-learning for the Cisco product family.

Three value added resellers (VAR) received a BPA award, which established a competitive marketplace for NASA to compete its Cisco requirements, while also obtaining small business credit. The NASA ITPO issues firm fixed price (FFP) call orders to the lowest priced technically acceptable (LPTA) vendor for each competed requirement. The BPA was awarded for a five (5) year ordering period from July 13, 2023, to July 12, 2028. The ITPO estimates, but does not guarantee, that the volume of call orders through this Multiple Award BPA will be $235.1M, with no minimum or maximum call order amount.

Prior to the establishment of this BPA, Cisco hardware, software, and related services were procured through a variety of NASA service contracts as other direct costs (ODCs) and through separate orders under the NASA SEWP GWAC. This resulted in limited insight into the Agency's purchasing of Cisco products and services and did not provide NASA an opportunity to leverage economies of scale for required purchasing. In addition, procuring Cisco products as ODCs through existing NASA service contracts adds additional cost burdens imposed by those contractors that are now avoided through this strategic sourcing approach.



In the first 10 weeks of this BPA, NASA experienced a cost savings of at least $2.5M. NASA has also demonstrated its ability to procure Cisco products and services much faster than previously stated processes (e.g., ODC purchasing through service contracts). Lastly, NASA ITPO has gained significant insight into the procurement process and management requirements of Cisco products and services that better positions the Agency with hardware/software compliance and technical specification accuracy. The NASA ITPO in coordination with OCIO plans to award several more BPAs for other prime hardware and software products to leverage the same benefits achieved through the Cisco BPAs.

Lydon B. Johnson Space Center (JSC)

Houston, Texas

NASA astronaut and Expedition 69 Flight Engineer Frank Rubio poses for a portrait while working inside the International Space Station's Destiny laboratory module.

Photo credit: NASA / JSC

Bradley Niese

Acting Procurement Officer

About JSC

NASA's Johnson Space Center (JSC) has served as a hub of human spaceflight activity for more than half a century. It is home to the nation's astronaut corps, the International Space Station Program, the Orion Program, and a host of future space developments. In addition, the center also provides mission and flight crew operations support services, engineering and human health and performance services, and support to the White Sands Test Facility in New Mexico.

Introduction

The Johnson Space Center (JSC) OP had a historical year. The office, made up of 127 personnel, processed 2,565 actions and over $4.6B in obligations.

Three members of the Artemis II crew.

Benevolent Undertaking Benefiting B.A. (BUBBA)

Historically, the Benevolent Undertaking Benefiting B.A. (BUBBA) provided networking and teambuilding opportunities for JSC OP employees by planning and executing in-person events to facilitate these activities, building a positive culture of teamwork and cooperation. With employees returning to work and onsite and in-person events being possible as restrictions from the COVID-19 pandemic were lifted, BUBBA once again resumed hosting events and maintaining a high level of morale within JSC OP.

BUBBA includes multiple facets to meet the goals of maintaining high levels of morale and fostering teamwork, such as "Lunch Bunch" events, "Snacky Hours", and other networking opportunities. By hosting a wide variety of events, BUBBA provides JSC OP employees the chance to experience different atmospheres and bond in the ways that best suit them.

One area of focus moving forward is including the White Sands Test Facility (WSTF) team in events to facilitate networking and morale building across multiple site locations. This included actions such as having a WSTF designated BUBBA representative, providing Teams links to onsite BUBBA events where possible, and coordinating events across sites to provide the same opportunities of teambuilding to WSTF employees as their JSC counterparts. For example, when a Teams link was not possible to be provided for the "Lunch Bunch" events, the WSTF BUBBA representative ensured a similar activity was done in Las Cruces to provide the same opportunity for morale building.

Furthermore, the WSTF team was able to attend the annual BUBBA picnic/carnival due to JSC OP's recognition of importance of in-person interaction with the employees from both sites.

These events have led to overwhelmingly positive feedback from both sites. By providing these events, BUBBA has proven itself critical to building and maintaining a culture where employees know they belong at NASA and feel connected to the entire Office of Procurement. As this culture grows stronger and new ways of fostering it are identified, the BUBBA team will continue to adapt and provide new events to help promote the Agency's and NASA Office of Procurement's mission.

Volatiles Investigating Polar Exploration Rover (VIPER)

NASA's Artemis lunar rover, the Volatiles Investigating Polar Exploration Rover, or VIPER, will explore the relatively nearby but extreme environment of the Moon in search of ice and other potential resources. This mobile robot will land at the South Pole of the Moon in late 2024 on a 100-day mission. The critical information it provides will teach us about the origin and distribution of water on the Moon and help determine how to harvest the Moon's resources for future human space exploration.

NASA will use the data the rover collects to show where the Moon's ice is most likely to be found and easiest to access, making VIPER the first-ever resource mapping mission on another celestial body. The first resource maps of the Moon will mark a critical step forward for NASA's Artemis missions to establish a long-term presence on the surface of the Moon.

Thanks to past missions such as satellites orbiting the Moon or impacting its surface, it is known that there is ice at the lunar poles. VIPER will roam the Moon using its three instruments and a 3.28-foot (1-meter) drill to detect and analyze various lunar soil environments at a range of depths and temperatures. The rover will venture into permanently shadowed craters, some of the coldest spots in the solar system, where ice reserves have endured for billions of years.

VIPER's instruments will also make important science measurements. Determining the distribution, physical state, and composition of these ice deposits will help us understand the sources of the lunar polar water, giving us insight into the distribution and origin of water and other volatiles across the solar system. During VIPER's exploration of the Moon, the rover will endure extreme temperature conditions, dynamic lighting, and complex terrain, while near-real-time rover driving will present new engineering and design challenges the team must overcome.

VIPER is being constructed from the ground up, so many of the components had to be purchased individually and then integrated into what will ultimately be the rover that goes to the moon. Several of the VIPER components were individually procured by the JSC OP, including:

- Solar Array consisting of three flight solar panels to power the VIPER while on the lunar surface and provide charging capability to the onboard battery.
- Inertial Measurement Unit that provides 3-axis rotation rate sensing and 3-axis translational acceleration measurement.
- Visible imaging subsystem units comprised of Navigation Cameras (Navcams), Hazard Cameras (Hazcams), and Camera Controller Unit (CCU) hardware.
- Acoustic Testing Services are queued up to be procured once the unit is assembled and ready for the next phase of testing.

While some of the items have never been produced to the level of specification needed to support a lunar mission, all of the components above were procured using Firm-Fixed Price contracts.

Commercial Lunar Payload Services (CLPS)

The Commercial Lunar Payload Services (CLPS) Project's initiative is to support the creation of a lunar economy through commercial deliveries of NASA science and technologies that will help prepare for the next generation of explorers. This is being accomplished through the CLPS multi-award Firm-Fixed Price (FFP) Indefinite-Delivery Indefinite-Quantity (IDIQ) contracts. CLPS competitively awards FFP Task Orders (TOs) to acquire end-to-end commercial payload services between the Earth and lunar orbit and/or the lunar surface that advance capabilities for science, exploration, or commercial development of the Moon. The cumulative maximum ordering value of the CLPS FFP contracts and associated TOs is $2.6B to be performed over a 10-year effective ordering period ending in November 2028.

The initial CLPS contracts were awarded in November 2018 to nine contractors of varying business size, of which 33% were awarded to small businesses. The CLPS contracts include an on-ramping clause which allows the original solicitation to remain open throughout the life of the contract. Therefore, at any time NASA deems necessary, NASA may solicit and award additional contracts. The on-ramping clause was deemed necessary to allow the addition of qualified contractors in support of NASA's goal to reach the Moon by 2024. In November 2019, the CLPS Project Team, which is made up of team members from multiple NASA Centers, completed the first on-ramp process and awarded five additional contracts on an aggressive schedule. Of the additional five contracts awarded, 20% of them were awarded to small businesses.

Currently, the CLPS team administers a total of 14 IDIQ contracts along with the associated task orders. All 14 CLPS IDIQ contract awardees are given a fair opportunity to compete for individual task order awards that cover end-to-end commercial payload delivery services, including a lunar lander spacecraft, payload integration, launch from Earth, mission operations, and delivering payloads to lunar orbit and/or landing them on the surface of the Moon. In addition to the CLPS payloads the contractors are also encouraged to fly commercial payloads. CLPS has eight active lunar deliveries scheduled for orbital and/or lunar surface delivery over the next three years. A significant number of the CLPS task orders have been awarded to small businesses.

Intuitive Machines' Nova-C lunar lander.

The following TOs awarded to Small Businesses:

- Astrobotic Technology, Inc., awarded $79.5M with a manifest of multiple NASA-Provided Lunar Payloads (NPLPs) performing science and technology demonstrations. The manifest represents an early step towards the Agency's long-term scientific study on human exploration of the Moon and later Mars. The Peregrine lander will deliver the payloads to a mid-latitude location on the lunar surface.
- Astrobotic Technology, Inc., awarded $199.5M with a manifest of the Volatiles Investigating Polar Exploration Rover (VIPER) and NASA retroreflector payloads. This manifest is in preparation for future human missions to the Moon. NASA is working to improve our understanding of potential lunar resources. The Griffin lander will deliver the payloads to the lunar south pole.
- Intuitive Machines, LLC., awarded $77.2M with a manifest of multiple NASA-Provided Lunar Payloads (NPLPs) performing science and technology demonstrations. The manifest represents an early step towards the Agency's long-term scientific study on human exploration of the Moon and later Mars. The Nova-C lander will deliver the payloads to the lunar south pole.
- Intuitive Machines, LLC., awarded $47M with a manifest of the STMD Polar Resource Ice-Mining Experiment-1 (PRIME-1) payload to test key aspects of the VIPER mission prior to sending VIPER to the Moon. The Nova-C lander will deliver the payload to the lunar south pole.
- Intuitive Machines, LLC., awarded $77.5M with a manifest of the SMD Lunar Vertex payload, MoonLIGHT Pointing Actuator payload (from the European Space Agency (ESA)), Lunar Space Environment Monitor payload (from the Korean Space Agency), and Surface Robotics Scout payload (a collaboration between STMD and JPL). The Nova-C lander will deliver the payloads to Reiner Gamma on the lunar surface.
- Firefly Aerospace, Inc., awarded $93.3M with a manifest of 10 science and technology demonstration payloads. The manifest seeks to maximize science value to NASA by collating localized, concurrent data sets from a lunar mid-latitude region. The Blue Ghost lander will deliver the payloads to Mare Crisium in the Moon's Crisium basin.
- Firefly Aerospace, Inc., awarded $111.5M with a manifest of the Lunar Pathfinder (an ESA payload), Lunar Surface Electromagnetics Experiment (LuSEE)-Night (a joint NASA and Department of Energy payload), and User Terminal (a JPL payload). Firefly will use their dual spacecraft solution of a Blue Ghost Lander and Blue Ghost Transfer vehicle to deliver Lunar Pathfinder payload into lunar orbit and deliver the other two payloads to the lunar surface on the far side of the Moon.

The following Task Order was awarded to a large business:

- The Charles Stark Draper Laboratory, Inc. (Draper), awarded $73M with a manifest of three SMD payloads to include the Lunar Interior Temperature and Materials Suites (LITMS) payload, Farside Seismic Suite (FSS) payload, and Lunar Surface Electromagnetic Explorer (LuSEE) payload. The Series 2 lander will deliver the payloads to the lunar surface at the Schrödinger Basin.

The CLPS task orders are high dollar value and over time have increased in complexity due to a combination of orbital and lunar surface deliveries, increased payload size, and payload sophistication. There is also high visibility with manifests of payloads received from across NASA, other federal agencies, and international space agencies.

The task orders are competed and awarded on a compressed schedule. Since inception, the average lead time from final request for task plan to award is three months. After each task order award, the team collects lessons learned and continues to refine and improve our processes, templates, and requirements. One improvement is the implementation of a Financial Capabilities assessment conducted prior to each task order award with support from Goddard Space Flight Center which further reduces NASA's risk in this area.

Lastly, the CLPS competitive task order framework has resulted in more than $1.3B in estimated savings in contractor mission costs, while also contributing more than $704M in total awards to small business. The cumulative initial value of the eight active competitive awards is $777M (includes large business Draper).

Commercial LEO

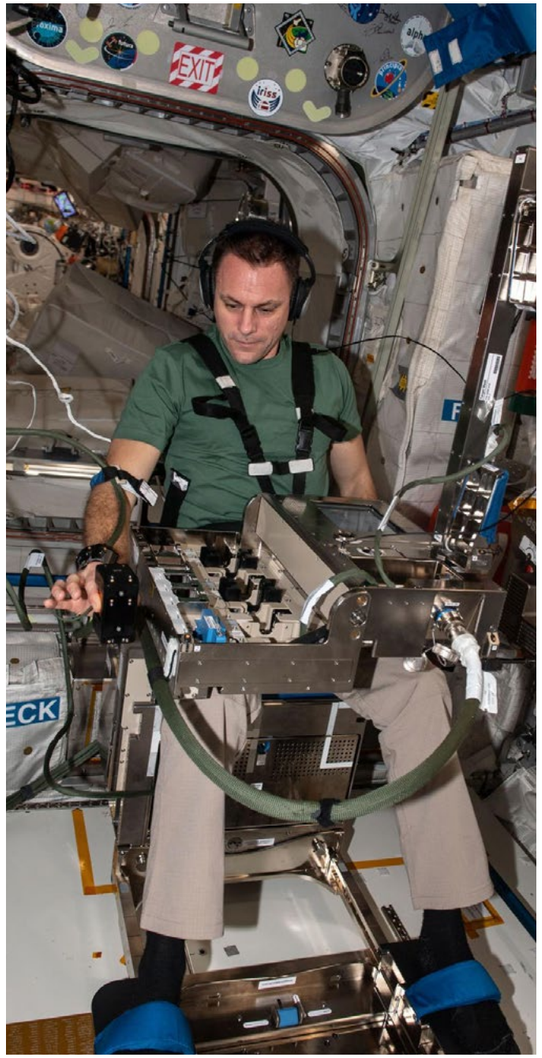
NASA has shared updated plans for the International Space Station (ISS), detailing when, where, and how it will fall to Earth. The space station launched in 2000 and has since been continuously occupied by astronauts for over 20 years. It is set to operate until 2030 and after that, it will be de-orbited and plunge into the waters of Point Nemo, an uninhabited part of the southern Pacific Ocean, in January 2031.

To ensure the Nation's long-term presence in low-Earth orbit (LEO), NASA is partnering with industry to develop commercial orbital

platforms and capabilities, which the private sector and NASA can use after the retirement of the ISS. The approved strategy for low-Earth orbit commercialization includes initiatives to help commercial development of LEO destinations, with a path to transition away from the ISS as the final government-sponsored U.S. platform.

The program anticipates entering into multiple agreements with commercial partners to enable the design maturation of vehicles, systems, and operations needed to deploy and operate commercial LEO destinations that meet the needs of NASA and other customers. The proposed two-phase acquisition strategy for free flyer development will follow a Commercial Crew Program (CCP) like approach. The initial phase of CLD will utilize funded Space Act Agreements (SAAs) to facilitate the early design maturation of safe, reliable, and cost-effective commercial orbital platforms and capabilities. Phase 1 will culminate in CLD design to approximately a Preliminary Design Review (PDR) level of maturity. The first phase will also inform the initial planning for acquiring commercial LEO destination services during Phase 2. Phase 2 will utilize a full and open FAR-based procurement for certification and services.

Research in low Earth orbit has many benefits, offering a unique setting to investigate various scientific phenomena. Moreover, it enables scientists to perform experiments in a microgravity environment, which can result in novel insights and discoveries. NASA remains at the forefront of these endeavors.



Expedition 68 Flight Engineer Josh Cassada of NASA.

Kennedy Space Center (KSC)

Kennedy Space Center, Florida

Teams with Exploration Ground Systems at NASA's Kennedy Space Center in Florida continue to work the upgrades and repairs on mobile launcher 1 and Launch Pad 39B on June 13, 2023, ahead of the first critical ground testing for Artemis II..

Photo credit: NASA / Kim Shiflett

Gerald Norris

Procurement Officer

About KSC

The Kennedy Space Center (KSC) Spaceport is located on 2,300 acres of land within the KSC National Wildlife Refuge, and it is here that humankind will begin its journey back to the moon to prepare for adventures deeper into space. With a workforce of over 2,000 civil servants and 6,000 support contractors, managed by KSC OP, the Spaceport truly epitomizes a team effort safely developing, integrating, and sustaining space systems through partnerships to launch humanity's future.

Introduction

In FY23, the Kennedy Space Center (KSC) Office of Procurement (OP) supported Artemis, numerous Agency programs, and 98 government, commercial, and academic partners. In order to sustain this diverse customer base, the Office managed a $50 billion contract portfolio responsible for maintaining all aspects of the multiuser spaceport. In FY23, they executed $5.7B in contract awards, 1,801 contract actions, and saved the taxpayer over $1 billion.

These accomplishments would not have been possible without its diverse staff of 91 professionals who were recognized with 237 individual, group, and agency awards for innovative and effective business solutions. It is a direct result of this staff's dedication that KSC OP continues to meet its customer's needs and enable mission success in an evolving environment.

Accomplishments and Initiatives

The year began by celebrating on the Space Coast of Florida when the Space Launch System (SLS) lit up the night sky with the first Artemis launch as KSC OP watched from their windows. The launch was the culmination of many years of hard work developing the Spaceport's infrastructure and grounds systems, modifying the mobile launcher, managing vehicle integration/processing, and executing multiple wet-dress rehearsals.

Artemis

As the Spaceport prepares for Artemis II, KSC OP continues to oversee Mobile Launcher-1 modifications in excess of $14 million while also supporting the billion-dollar development of Mobile Launcher-2 and a $30M fabrication effort responsible for critical mobile launcher components under the Ground Support Equipment contracts. In March, Mobile Launcher-2, which will support the new SLS Block 1B configuration in the Artemis IV mission, successfully passed the Integration Critical Design Review. As a result of KSC OP's leadership, the project has progressed into the construction phase and KSC employees and visitors can now see Mobile Launcher-2 taking shape shortly after they enter the Spaceport along the NASA Parkway.

The Spaceport is continuously developing, and this year saw approximately $324M in construction work to upgrade the cranes, chillers, and roofs at the Booster Fabrication Facility while also making modifications to the Vehicle Assembly Building's (VAB) environmental control system, platforms, and High Bay. In addition, KSC Procurement came through at the end of the fiscal year with a $22M contract award in two and a half months for replacement of the air systems at the Launch Control Center and VAB; not only will this effort provide critical air quality protection for these facilities, but it contributed significantly to KSC

Procurement's continued success in meeting its small, disadvantaged business goal.

Over the past 10 years, one of the most all-encompassing launch support contracts managed by KSC OP was the Test and Operations Support Contract which provided overall management and implementation of ground systems capabilities, flight hardware processing, and launch operations. However, as Artemis takes shape and new providers arrive at the Spaceport, a new contract mechanism was needed to provide overall management of KSC launch operations. In response, KSC OP awarded the $3.2B Consolidated Operations, Management, Engineering and Test (COMET) contract to ensure support for Artemis missions through 2033 and launch operations. The contract is transforming the way KSC manages the launch support ground systems by increasing performance efficiencies that embrace contractor ingenuity to safely execute missions with a reduction in both NASA oversight and compliance driven requirements. As a result, KSC OP was able to transition COMET from an entirely cost-plus award fee construct to a hybrid approach that incentives ingenuity with a combination of fixed price, cost reimbursement, and incentive approaches.

Finally in support of Artemis, KSC OP oversaw the arrival of three environmentally friendly all-electric Crew Transportation Vehicles (CTVs) ordered the previous year. These vehicles will be used to transport fully suited astronauts with equipment to the launch pad beginning with the upcoming Artemis II mission. The CTVs are the most recent addition to the Artemis program, replacing shuttle era vehicles over 40 years old.

Launch Services

While NASA pushes further into space with the Artemis Program, it is looking to commercial launch service providers to meet low Earth orbit needs. Drawing on their commercial launch service expertise, KSC OP is establishing itself as a leader in commercial space acquisition as demonstrated with the successful management of three multiple award launch service contracts with providers delivering astronauts to the International Space Station (ISS) and an array of satellites ranging from billion-dollar flagship missions to cost-saving

Sunset near the Vehicle Assembly Building.

CubeSats. During the year, their contracts were responsible for 10 launches that sent 12 astronauts to the ISS and placed 15 satellites into orbit. These launches included the Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats (TROPICS) mission which delivered four satellites to space with two launches in only 19 days. The TROPICS mission represented the shortest turnaround time for a NASA Launch Service Program mission, and it opens the door to a low-cost approach for future Earth science, and similar, missions. With ten launch service efforts awarded in 2023, KSC OP will remain fully engaged with upcoming missions across the Agency.

Not only is KSC Procurement responsible for launch services, but they also procure commercial payload processing support, and this year crafted a new acquisition to expand competition opportunities under the $100M multiple award Spacecraft Processing Operations Contract. The most notable mission supported during this period was the payload processing support for the billion-dollar Psyche mission. When a slip in spacecraft readiness occurred at the end of FY22, KSC OP successfully executed an accelerated payload processing acquisition to acquire commercial facilities that ensured critical spacecraft cleanliness standards were maintained with vehicle integration and processing services. Without their ability to quickly ramp up this acquisition at the beginning of the year, the Psyche mission would have been forced into a multiple-year delay with substantial increases in maintenance costs due to planetary window launch constraints.

KSC Procurement's launch service achievements do not go unrecognized by its customers. In August, Brian Hinerth was the first procurement representative selected by the Commercial Crew Program to raise a mission flag. The honor was bestowed for the Crew-7 mission and was in recognition of Brian's 10 years of devotion to the Commercial Crew Program which included contract formation efforts followed by many difficult negotiations as demonstrated in the eight additional crew missions he awarded to sustain the ISS, of which, three required expedited acquisitions to ensure no gap in access.

The Spaceport and Beyond

KSC Procurement is responsible for the day-to-day operations of the Spaceport and seven enterprise product services lines. To maintain operations, they executed 490 orders for new work valued at over $32M to include an effort for the replacement of access systems to launch pad lightning towers. In addition, over $87M in sustainment support was managed to keep the Spaceport running inclusive of facility upgrades, emergency repairs, and on-going support for Artemis and commercial space partners.

KSC OP is instrumental with public outreach through its management of the KSC Visitor Complex concessions contract. With an onsite Contracting Officer at the facility, they helped ensure that the Visitor Complex remains one of the premier attractions in Central Florida serving over 1.6 million people and hosting 505 special events. This year events included numerous launch support activities and the first, sold out, Taste of Space: Celebrity Chef Edition event attended by Duff Goldman (from Ace of Cakes and Kids Baking Championship), chef Esther Choi (from Beat Bobby Flay and Chopped), and chef Jon Ashton (from The Today Show and The Tonight Show).

In support of the Spaceport and Agency, KSC OP also wrapped up four major acquisitions with a combined value exceeding $1.3B:

- Safety and Mission Assurance Support Services IV (SMASS IV) Contract: This competitive acquisition was conducted via a Source Evaluation Board (SEB), and it successfully converted a cost reimbursement contract to a fixed price approach that oversees the safety, reliability, and quality disciplines under various programs supported at KSC. This contract enables KSC to maintain the rigor needed in mission assurance, engineering, and risk analysis to ensure safe and successful access to space.
- NASA Communication Services Contract: This competitive acquisition was reserved for small, disadvantaged businesses and was conducted via an SEB. The resultant Enterprise contract provides communication and related services to all but two NASA centers and Mission Directorates.

Orion crew module for NASA's Artemis IV mission.

Since award, KSC OP has executed thirty-one orders, on top of the baseline support, to ensure continuity of services across eight Centers with additional Centers projected to come on-line.

- KSC Helium Contract: This was the largest commercial contract awarded by NASA in FY23 with a potential value exceeding $1B for the supply of liquid helium and supporting pumps. Establishing this contract ensures the availability of this critical commodity in support of agency programs including the Commercial Crew Program, Commercial Resupply Services (CRS), and Artemis.
- NASA Protective Services Contract (NPSC): This is an established Enterprise contract awarded and managed by KSC Procurement. Under this contract, KSC Procurement was able to pull on flexible terms they preemptively established to enable additional work from Centers. Accordingly, when the need arose, KSC Procurement was able to execute a six-month acquisition schedule and avoid a lengthy one-off procurement that would have resulted in multiple contract bridge extensions. Not only did this approach ensure mission needs were met, but it contributed significantly towards small business goals.

Diversity, Equity, Inclusion, and Accessibility (DEIA)

KSC OP is a conduit to underserved communities in the Central Florida region with a growing outreach program that is partnering with primary/secondary schools and Bethune–Cookman University, an HBCU, located just north of KSC. As KSC OP staff continues to develop these relationships they aim to increase access for these students to employment opportunities across the region and throughout NASA. In addition to these efforts KSC OP conducted twelve DEIA training sessions hosted by KSC Procurement Leadership and attended multiple Employee Resource Group events. DEIA training was also brought into their all-hands training with guest speakers from the Center DEIA Office and the LGBTQ+ Employee Resource Group. In combination with this training, a cultural luncheon was held where employees shared dishes that drew from their experiences and heritage. It was an extremely successful event which increased the personnel connections across the office while also revealing that KSC OP has some quality Chefs! In addition to these efforts, KSC OP's commitment towards serving underserved communities was evident in their surpassing all small business goals and receiving a "HIGHLY SATISFACTORY" rating from the Small Business Administration (SBA) for their overall small business program; of the thirty procurement offices reviewed by the SBA across the federal government in FY23, KSC was one of only five to receive this complementary rating.

Always Improving

Success today is not a formula for success tomorrow and for this reason KSC OP is always looking for opportunities to develop its staff to meet Agency needs. Accordingly, they provided over 75 procurement-related training classes to staff and their customers. In addition, this year saw the roll-out of the first KSC OP Training Symposium which offered three days of procurement training spread out across the year and included team-building events with opportunities for the staff to explore the Spaceport. Looking ahead KSC OP will continue to maintain a robust training program to meet the Agency's needs and the needs of its customers across the Spaceport.

Langley Research Center (LaRC)

Hampton, Virginia

Todd Pospisil

Procurement Officer (Acting)

About LaRC

Langley's innovation propels NASA's missions, with special focus on Space Technology and Human Exploration, Science, and Aeronautics. In science, Langley's scientists and their partners expand knowledge of Earth's atmosphere and how our planet absorbs and reflects sunlight — which drives weather and climate. Our researchers also support science on the Moon, Mars, and beyond.

Introduction

The Langley Research Center (LaRC) OP continues to solve critical and complex problems for our nation. In FY23, LaRC's 46 OP employee workforce celebrated its 106th anniversary by conducting 1,100 actions and over $467M in obligations and securing 32 patents and 156 inventions.

Langley Research Center works to make revolutionary improvements to aviation, expand understanding of Earth's atmosphere, and develop technology for space exploration.

Langley explores the unknown in air and space, innovates for the benefit of humanity, and inspires the world through discovery. Each day, Langley's diverse workforce drives mission success. The story of Langley starts with aviation. Founded in 1917, Langley was the first field laboratory of the National Advisory Committee for Aeronautics, the precursor to NASA. In those early years, Langley engineers expanded the horizons of flight and helped cement America's place as a world leader in aviation. At the dawn of the space age, the Mercury 7 — NASA's original astronauts— started their training here. Langley is where Katherine Johnson's math skills lifted historic early space missions to success. Today, the tradition of leadership continues. Langley is a unique concentration of labs, workshops, wind tunnels, clean rooms, flight simulators, and testing facilities spread across 190 buildings and 764 acres. Of course, people are the source of the center's success.

Some 3,500 engineers, scientists, technicians, and support workers make Langley a world-renowned center of research excellence and innovation. The people of Langley team with colleagues across the Agency and partners in the private sector to make discoveries and improve lives.

Langley researchers help pioneer an exciting new era of faster, safer, more sustainable, more accessible flight by developing and testing ideas for new vehicles and systems. They also search for ways to improve existing ones.

Building on a foundation of excellence in aviation, Langley has set a path forward for future supersonic passenger flights over land, improving safety and efficiency using new methods of aerodynamic testing in our wind tunnels and helping to integrate air vehicles of all sizes into our nation's airspace through Advanced Air Mobility activities—all so that people can go further, faster, and more efficiently than ever before.

Langley excels in researching the Earth's atmosphere and has emerged as a world leader in studying systems that make up the planet's atmosphere, weather, changing climate, and radiation budget. These are Earth's vital signs, they are being monitored on land, in the air, and in space. By measuring the effects of everything from rush-hour traffic to the pollution caused by forest fires and volcanoes, NASA's data is paving the way for improvements in air quality across North America to help protect our planet. Our researchers also support science on the Moon, Mars, and beyond.

> More than 37,000 people registered to attend the 2023 NASA Langley open house.
>
> Photo credit: NASA / Dave Bowman

In space exploration and space technology, Langley researchers provide agency leading expertise in entry, descent, and landing; innovative heat-shield designs that will contribute to landing humans safely on Mars; and methods for robotic construction in space, on the Moon, and on Mars. Powerful new instruments, sensor systems, and composite materials developed at Langley will make momentous space exploration missions possible.

Advancements like these are possible through Langley's people, with expertise in Advanced Materials and Structural Systems; Aerosciences; Atmospheric characterization; Entry, Decent and Landing; Intelligent Flight systems; and Systems Analysis and Concepts. Langley's diverse workforce is approaching the challenges of the future through innovation, ingenuity, and collaboration.

Langley is building new partnerships with industry and government, and working together, the goal is to move ideas from concept to reality. Together, the nation's leadership in aerospace is being secured and sharing knowledge that protects and improves lives around the globe.

In FY23, NASA Langley Research Center (LaRC) exceeded its Small Business Prime goals in 3 of the 5 small business categories. LaRC awarded 52.2% of its prime dollars to small businesses, exceeding its FY23 small business goal by 18%! By performing diligent market research along with conducting multiple industry days, LaRC was able to compete its Research, Science, and Engineering Services (RSES) as a small business set aside and ultimately awarding this high-dollar, mission critical service to a small business. The maximum contract value for RSES is nearly $1.5B.

LaRC obligated $50M (or 10.9%) of its prime contract dollars on Small Disadvantaged Businesses (SDB) in FY23, a 25% increase from FY22. SDBs perform crucial mission support functions such as security, logistics, grounds maintenance, as well as administrative, media, and professional services.

Women-Owned Small Businesses (WOSB) provide many key support services for LaRC including geospatial services, environmental services, and occupational health. In FY23, LaRC obligated $28M (or 6.2%) of its prime contract dollars on WOSB's.

Research, Science, and Engineering Services (RSES)

The Research, Science, and Engineering Services (RSES) contract is NASA Langley Research Center's largest contract ($1.5B) to date. RSES, a total small business set-aside (SBSA), was a restructuring of how LaRC procures high-technology, cross-disciplinary, and leading-edge work in aerospace, space exploration, and science. The RSES procurement team successfully implemented an innovative, far-reaching acquisition strategy to execute the Agency's Procurement Transformation Initiative, by consolidating four major existing contract vehicles with overlapping requirements from LaRC's Research, Engineering, and Science Directorates. The ahead-of-schedule, under-budget, and protest-free award of the RSES contract was a culmination of the hard work produced by the multiple teams that worked together through procurement development to the source evaluation board.

The team conducted extensive market research and outreach efforts, including two Requests for Information (RFIs), two industry conferences, and many one-on-one meetings between industry and NASA stakeholders. The industry conferences and forums highly encouraged teaming arrangements to allow for greater SB participation in this acquisition. The procurement team also sought industry's recommendations to enhance diversity and inclusion, advancing equity and removing obstacles for members of underserved communities to access procurement opportunities. This preliminary market research was supplemented by using the Advisory Multi-Step Process, which benefited both LaRC and industry to investigate further if SBs could successfully perform on this contract. This extensive market research resulted in LaRC determining to make RSES a total SB set aside. The RSES solicitation resulted in a competitive pool of five SB offerors, each with unique teaming arrangements that increased SB participation.

PROCUREMENT OFFICE LOCATION HIGHLIGHTS – LaRC

Artemis II astronaut Victor J. Glover participates in NASA Langley's Open House.

The RSES procurement strategy applied Executive Order 13985 Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. The team pioneered an innovative strategy that ties Diversity, Equity, Inclusion and Accessibility (DEIA) through the acquisition life cycle, including market research, requirements, a DEIA evaluation factor, DEIA as a post-award Award Fee criteria, and a DEIA Plan. This unprecedented approach advances the utilization of small businesses, Historically Black Colleges and Universities/Minority Serving Institutions (HBCU/MSI), and underrepresented groups in the performance of the RSES contract. The most unique in-reach activity was including the Office of Diversity and Equal Opportunity in small business outreach efforts and development of the RSES DEIA approach. They also advised Source Evaluation Board (SEB) members and provided advice regarding advancing DEIA and the inclusion of small business concerns.

The RSES procurement team also utilized a Past Performance Advisory Committee (PPAC) to assist in developing and evaluating the past performance factor. The team provided small business industry with several iterations and considered industry's feedback to communicate clear and concise technical areas that the SEB would evaluate. Leveraging this streamlined methodology, and strong outreach to industry, allowed for a very transparent and easily understood evaluation. These innovative factors made this award approximately three months faster than the Agency metric, resulting in an estimated cost savings of roughly $275M compared to the government estimate, resounding positive feedback from all offerors during debriefings, and, ultimately, no protest.

Marshall Space Flight Center (MSFC)

Huntsville, Alabama

John Cannaday

Procurement Officer

About MSFC

Marshall Space Flight Center has been solving complex technical problems throughout NASA's history – advancing propulsion technologies, developing science instruments, and refining engineering solutions to support all NASA's spaceflight endeavors, research activities, and new missions to the Moon, Mars, and beyond.

Introduction

The Marshall Space Flight Center (MSFC) OP consists of 113 personnel and in FY23, they conducted 2,053 actions and $4B in obligations.

Workforce Initiatives

Throughout FY23, the MSFC OP made significant investment in workforce development and human capital initiatives. An Associate Deputy Director was appointed to lead these efforts for the MSFC Procurement workforce, placing emphasis on recruitment and retention, succession planning, diversity/inclusion, and training/development.

MSFC OP assessed and restructured the workforce to align talent and skill mix with mission needs, including a forward-looking rightsizing plan focused on data driven benchmarking to support manpower needs for the OP, down to the division and branch levels. MSFC OP has rightsized the procurement organization to meet the evolving needs of MSFC and better support our mission partners; examples include, appointing Product Service Line leads to oversee the strategic procurement initiatives lead by MSFC and the stand-up of a procurement team to support the Pre-Exploration Production and Operations Contracts (Pre-EPOC) Evaluation and Readiness effort.

MSFC OP also implemented a comprehensive hiring plan that leverages all the hiring flexibilities available to the organization: Skill Bridge, Talent Marketplace, agency-wide job announcement, and Direct Hire Authority are all used to fill vacancies.

Focused training to strengthen core competencies, filling skills gaps, and developing future leaders were a top priority for our leadership team in FY23. Developmental opportunities were created for the workforce and employees participated in career broadening assignments. MSFC OP hosted over 18 focused procurement training sessions designed to improve core competencies, fill skill gaps, and strengthen technical acumen. MSFC OP established robust professional development objectives that included a first of its kind support agreement with the Defense Acquisition University (DAU) to take advantage of their onsite presence and expertise to provide "just in time" training, source selection simulation, and negotiation training. Expanded training for journeyman level procurement professional to create greater depth of understanding of industry organization-specific financial incentives/metrics and developing approaches to generate savings in different negotiation scenarios.

Thirty percent of the MSFC procurement team attended the 2023 National Contract Management Association (NCMA) World Congress virtually or in-person and MSFC OP supervisors and

> This imagery shows how technicians at NASA's Michoud Assembly Facility moved the aft dome of the liquid oxygen tank for NASA's SLS (Space Launch System) rocket for the next phase of production inside the Vertical Assembly center.
>
> Photo credit: NASA / Evan Deroche

Hansel Gill and another MFSC instructor present to OP leadership during a tour of the facility.

managers participated in the 2023 NASA OP leadership conference, learning new skills, networking, and focusing on NASA 2040.

The Office of Procurement implemented enhancements to the MSFC OP New Hire Training to include division overviews to increase new hire awareness of all MSFC acquisition programs and organizational mission portfolios. This enhancement proved popular among new hires and provided them with a basic understanding of the many different programs and opportunities available to them as contracting professionals along with a personal connection to the MSFC OP leadership team.

Small Business Initiatives

MSFC continues to lead the Agency's Small Business Program and achieved annual recognition for the seventh year in a row. The MSFC Small Business program continues its success story by implementing 20 out of 50 Mentor Protégé Agreement Partnerships (MPP) since 2008. There was significant progress made on the continuation of MSFC establishing MPP relationships between NASA Prime Contractors and Small Businesses through targeted outreach with our industry partners. Mentor Protégé Programs have allowed the emergent small business community to acquire past performance, leverage best practices, and gain an understanding of procurement processes and business acumen. Finally, MSFC's significant outreach and collaborative acquisition planning resulted in the Center achieving all of it FY23 Small Business Goals.

Business Operations Process Improvements

Facilitating Marshall's Return to Work posture, MSFC OP outfitted its workstations with the additional equipment to ensure they were mission ready. This investment provided the MSFC Procurement workforce with full functionality for on-site work while also allowing full IT equipment setup in a telework or remote workspace, eliminating the need to transport IT equipment, other than a laptop, between the office and alternate worksites.

The Policy and Information Management Office continues to develop innovative tools to increase efficiencies. During FY23, a document routing system was developed using PowerApps. This innovative process provides a way for contracting personnel at all levels of the organization to upload and route documents for review and approval in a streamlined and standardized manner. An additional area of focus was the initiation of a special project to create "desk guides" to implement standardization, ensure business continuity, and reduce rework.

There was an increased focus placed on the importance of MSFC-centric metrics and implemented processes to track and reduce the number of Government Purchase Cardholders, and audit and compliance activities. One civil servant in Policy and Information Management is aligned to capture MSFC-centric metrics and coordinate with HQ OP Enterprise Systems Business Office to increase efficiencies and provide timely updates to senior staff and management.

In addition, MSFC OP revised Operating Work Instruction Number 05, Review and Approval of Procurement Documents, to delegate authorities to lowest level possible considering risk tolerance. Focused engagements with critical team members eliminated rework and go-backs and removed unnecessary reviewers. Process improvements such as these reduce the review and approval cycle, and focused engagements result in improved document quality.

Planetary Missions Program Office

Dragonfly

In June 2019, the Dragonfly mission was selected by NASA Headquarters, Science Mission Directorate (SMD) to proceed into Phase B activities. The award was made through a two-step, down-selection process of the 2016 New Frontiers Program Announcement of Opportunity (AO). Dragonfly is a complex, planetary mission, that will rely on the development of a relocatable rotorcraft lander to explore and characterize the habitability of Titan's environment and search for potential biosignatures and prebiotic chemistry.

Dragonfly is a Principal Investigator (PI)-led task with the Johns Hopkins Applied Physics Laboratory (JHU/APL). All tasks and deliverables specified in the work effort are consistent with those required for Phase B and successful completion of a Preliminary Design Review (PDR) and subsequent Key Decision Point (KDP)-C review.

Dragonfly task order was originally established in 2018 under the ARDES (Aerospace Research, Development and Engineering Support) I contract and is currently in its third rephase of Phase B activities due to NASA's budget constraints. The Dragonfly effort was transitioned to the ARDES II IDIQ contract, awarded March 30, 2022. When compared to the ARDES I contract, ARDES II, provides NASA with greater program management control and oversight, more comprehensive data requirements descriptions (DRD) for NASA deliverables, more favorable technical data license rights, and protections against counterfeit items and contract funding flowing into China and Russia.

The Dragonfly mission is currently in a Undefinitized Contract Action (UCA) as the budgetary constraints still exist for FYs 24-25 within the Planetary Science Division of SMD. In an effort to support the replan, NASA has delayed the Dragonfly's KDP-C until a new cost and schedule profile are established by this third replan of Phase B. Once the UCA is definitized, the decision will be made to allow the mission to enter Phase C for a June 2027 Launch Readiness Date (LRD).

Consolidated Program Support Services (CPSS)

As NASA continued to implement its Enterprise Product Service Line (PSL) strategy in FY23, MSFC continued execution of the Consolidated Program Support Services (CPSS) Program Planning and Control (PP&C) contract. The CPSS PP&C contract supports the Agency's western region composed of MSFC, Ames Research Center (ARC), Armstrong Flight Research Center (AFRC), Glenn Research Center (GRC), Johnson Space Center (JSC), Kennedy Space Center (KSC), and Stennis Space Center (SSC). MSFC was selected as the western region lead due to its long-standing leadership (e.g., MSFC PP&C Improvement Initiative and Five-Point Plan) upon which NASA HQ and other Centers have modeled their PP&C efforts.

The Agency's CPSS PP&C contract enhances how program/project stakeholders acquire and contractors deliver PP&C integration, earned value management, cost estimating and cost analysis, resource data storage and retrieval library services, scheduling, and risk management support. The contract also provides non-PSL related programmatic subject matter expert (SME) support services that are available to the entire Agency. Currently, the CPSS PP&C contract is supporting PP&C requirements at NASA HQ, ARC, GRC, JSC, and MSFC–and the contract is well positioned to support future PP&C requirements across the western region. The contract is also supporting programmatic SME requirements at ARC, GRC, JSC, and MSFC.

The regional performance-based contract contains a firm-fixed-price mission services element (for support at JSC and MSFC), an indefinite-delivery, indefinite-quantity (IDIQ) element available to support PP&C requirements at every regional location, and a time-and-materials element for programmatic SME requirements Agency-wide. The contract continues through August 2024 with one-year options available through August 2026.

Michoud Assembly Facility (MAF) Roofing Construction

MSFC and the U.S. Army Corp of Engineers (USACE) Interagency Agreements (IAAs) remained ongoing in FY23 for the completion of multiple roofing projects at the Michoud Assembly Facility (MAF). The USACE will provide engineering, design and review, construction management, environmental services and deconstruction/demolition of NASA buildings including emergency support for up to five years.

The MAF repairs and roofing projects will include, but are not limited to, roof replacement, as well as roof and other repairs to buildings 220, 320, and 420. Building 103 is approximately 1,981,614 square feet and is a manufacturing building where the Artemis: SLS (Space Launch System) Core Stage is produced. This is a critical real property asset for the Agency and houses specialized tooling and unique manufacturing areas needed to produce flight hardware. Building 103 also houses NASA commercial tenants that offset operating cost for the facility. Building 220 is approximately 200,536 square feet and is the vehicle component supply building. Currently, this building is utilized for training of production workforce and storage of special tooling that is utilized in production of NASA Flight hardware. Building 320 is approximately 91,432 square feet and is the facility operations building. The building houses site emergency operations and facility support personnel. Building 420 is approximately 109,056 square feet and is the acceptance and preparation building. This building currently houses NASA commercial tenant LM Wind Power which offsets site operations cost.

NASA Financial Support Services (NFSS)

MSFC completed, via an 8(a) set-a-side, and awarded the NFSS contract in FY23. The NFSS contract provides the following services: business and resource management, financial reporting and monitoring, policy integration, systems integration, quality assurance integration, and accounting operations.

The contract is an Indefinite Delivery, Indefinite-Quantity (IDIQ) with Firm-Fixed-Price (FFP) and Cost-Plus-Fixed-Fee (CPFF) task orders. The IDIQ maximum is $517M and has an eight-year period of performance through February 28, 2031. The contract has a two-year base period and three two-year option periods.

The contract has produced significant cost savings for NASA. The contract reduced the number of Work Year Equivalents (WYEs) supporting NASA financial services from 281 to 228. Administrative efficiencies were also realized given the reduction from four Contracting Officers (COs) and four Contracting Officer Representatives (CORs) to one CO and one COR needed to administer the contract.

The NASA Office of Jet Propulsion Laboratory Management and Oversight (NOJMO)

Jet Propulsion Laboratory, Pasadena, California

NASA's 2021 class of astronaut candidates view a booster segment for Artemis II inside the Rotation, Processing and Surge Facility during a familiarization tour of facilities on Tuesday, Oct. 17, 2023, at the agency's Kennedy Space Center in Florida.

Photo credit: Nasa / Frank Michaux

James Williams

Procurement Officer

About NOJMO

The NASA Office of JPL Management and Oversight (NOJMO) Contract Management Division (CMD) is assigned to the Jet Propulsion Laboratory, NASA's only Federally Funded Research and Development Center (FFRDC), located in Pasadena, California.

Introduction

The Contract Management Division (CMD) at the NASA Office of JPL Management and Oversight (NOJMO) is responsible for the procurement and contract administration of the NASA FFRDC sponsorship agreement with the California Institute of Technology/Jet Propulsion Laboratory (Caltech/JPL); and the contracts with the governments of Spain and Australia for the operations of the Deep Space Network (DSN) Communication facilities.

The CMD team ensures timely award of critical task orders to Caltech/JPL in support of requirements linked to the NASA Strategic Goals for the Jet Propulsion Laboratory. The team also performs a vital role in the success of NASA's efforts to send satellites to near and deep space and NASA's ability to maintain constant communication with its deep space assets.

In FY23, the NOJMO CMD team awarded over $7.3B in task order value and obligated over $2.9B in support of NASA and other federal agencies' requirements.

Left: NASA's Psyche spacecraft in its payload fairings.
Photo credit: NASA / Ben Smegelsky

Opposite page: Surface Water and Ocean Topography (SWOT) satellite with solar arrays fully deployed.
Image credit: NASA / JPL-Caltech

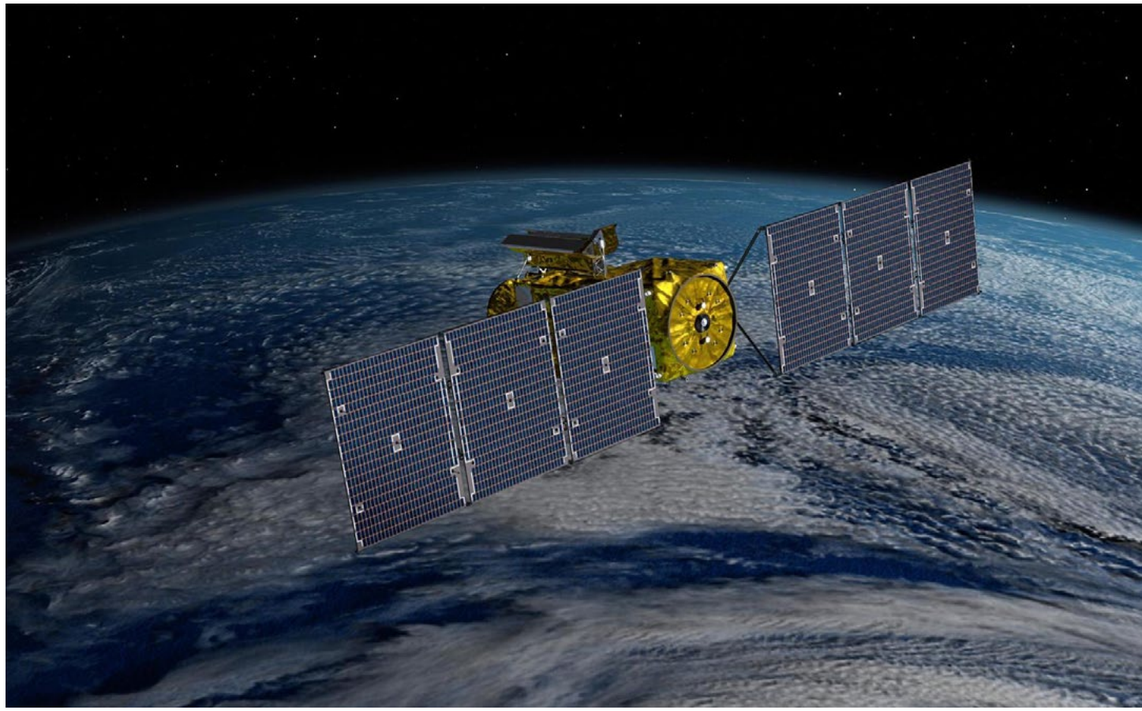
Notable Accomplishments

Throughout FY23, NOJMO issued multiple Space Act Agreements to non-federal entities for research and development work assigned to Caltech/JPL. Members of the CMD team administrated task orders that lead to the successful launch of the:

- Psyche spacecraft whose mission is to journey to a unique metal-rich asteroid orbiting the Sun between Mars and Jupiter. After arrival, the mission plan calls for mapping the asteroid and studying its properties; and
- Surface Water and Ocean Topography satellite which will make the first-ever global survey of Earth's surface water and will collect detailed measurements of how water bodies on Earth change over time.

The team also provided continued contract administration support to the:

- NASA-ISRO Synthetic Aperture Radar (NISAR) - NISAR is a NASA partnership with the Indian Space Research Organization. Once launched, NISAR will measure the changing ecosystems, dynamic surfaces, and ice masses of Earth.
- Spectro-Photometer for the History of the Universe and Ices Explorer (SPHEREx) - SPHEREx will provide the first all-sky spectral survey. Over a two-year planned mission, the SPHEREx observatory will collect data on more than 300 million galaxies along with more than 100 million stars in the Milky Way in order to explore the origins of the universe.



NASA Shared Services Center (NSSC)

Stennis Space Center, Mississippi

Eli Ouder

Procurement Officer

About NSSC

NSSC serves as a major Agency-wide service resource that provides timely, accurate, high-quality, cost effective, and customer-focused services for NASA. The NSSC serves the IT, financial management, procurement, and human resources communities as a value added, independent resource. Increased operational efficiency and improved overall customer service will be achieved through consolidated business and technical services. By achieving synergy within and across functions the NSSC will reduce resource requirements for institutional support areas and position NASA for further business process improvements and innovations.

Introduction

The NASA Shared Services Center (NSSC) Office of Procurement (OP) supports a robust and diverse portfolio encompassing Grants, Small Business Innovative Research (SBIR) Contracts, Small Business Technology Transfer (STTR) program support, Enterprise License Management (ELM), Agency-wide enterprise contracts, Simplified Acquisition Threshold (SAT) purchases, Government Purchase Card (P-Card) program management, Federal Acquisition Certification—Contracting (FAC-C), Federal Acquisition Certification—Contracting Officer Representative (FAC-COR) programs, and other ancillary support activities in support of the entire NASA enterprise.

The NSSC OP workforce consists of 46 Civil Servant personnel and approximately 99 Service Provider (SP) contractor support personnel. Collectively, the NSSC PR Division processed 16,417 actions exceeding $1.8B in obligations in FY23.

Notable Accomplishments

- Enterprise License Management Team (ELMT) awarded stand-alones for C&R Tech Thermal Desktop software ($623K), AutoDesk software ($57K), ABAQUS software ($349K), CRIBL software ($513K).
- ELMT awarded a task order for KSC for Splunk software licenses for a total award value of $10,759,821.43.
- The Research Activities Branch successfully negotiated and awarded 296 SBIR/STTR Phase I contracts valued at more than $44M during the peak season of fourth quarter with all awards meeting the required deadline. Research Activities Branch personnel also assisted other Branches with end of year work during this period.
- The Simplified Acquisition Threshold team finished FY 23 with 3,501 orders placed valued in excess of $150M to support numerous missions across all of NASA. Maintained 91% rate meeting award metric over the course of FY 23.

Orion Nebula, located about 1,340 light-years from Earth.

Photo credit: NASA / JPL-Caltech

NASA Shared Services Center.

- Proc Ops – Human Capital Support Services - provided NASA 2040 support to Senior Agency Stakeholders; worked $2.1M extension to NEHCSS task order; team is working a long-term solution with a more broadly scoped PWS to be awarded in Q1 of FY24.
- The Agency Contracting Team awarded three multiple award IDIQs for NASA Enterprise-wide Human Capital Support Services (NEHCSS) valued at $76M. Services ranging from, but not limited to, HR Business Partner (HRBP) advisory support for the development and implementation of the organization's human resources strategy to subject-matter expertise in areas such as, but not limited to HC policy development, data analytics, talent development and executive services.
- The Agency Contracting Team awarded the NASA Transformational Shared Services (NTSS) Contract valued at $400M. The purpose of this contract is to provide shared services support to a broad range of National Aeronautics and Space Administration's (NASA) Shared Services Center (NSSC) functional activities to include but not limited to Financial Management (FM), Human Resources (HR), Procurement Services (PR), Agency Business Services (ABS), Intelligent Automation Services (IAS), and, potentially, business and technical services to other agency and related services.
- The P-Card Team led an effort to launch the General Services Administration (GSA) Commercial Platforms, which helps to modernize the buying experience for Purchase Cardholder's routine commercial item purchasing through partnerships with multiple e-commerce platforms (Amazon Business, Fischer Scientific and Overstock Government). This initiative provides competitive pricing, saves time purchasing and offers buyer tools (access to small business vendors, AbilityOne products, etc.).
- The Simplified Acquisition Threshold Team initiated a new process to redefine the end of fiscal year deadline. This improvement resulted in more timely receipt of purchase requisition packages and a smoother end of fiscal year.

PROCUREMENT OFFICE LOCATION HIGHLIGHTS – NSSC

- The Agency Contracting Team completed three multiple award BPAs valued at $8.5M for Agency Sign Language Interpreter Services. These critical awards provide essential interpreter and translation services to Agency customers that are hearing impaired.
- The Grants Activities Branch received accolades from the Director of the NASA Human Research Program (HRP) for significant improvements in the processing of the HRP grants and financial alignment.
- Grants Activities Branch was successful in creating automation to assist the Service Providers with pulling the SF425A from Payment Management System in the Routine Monitoring Plan.
- Grants Activities Branch had one employee participate in onsite OSTEM Kaizen event to implement an enterprise-wide approach for OSTEM that enables greater operational efficiencies and productivity through leveraging resources and processes across HQ and the nine centers.
- Grants Activities Branch co-hosted two Ask NASA events with GPC for our external customers. Both events received positive feedback.
- Grants Activities Branch completed a Mission Support Enterprise Organization (MSEO) Grants Pain Point project to improve our customer experience, streamline our end-to-end grant processing to includes automation, created specific reports for SMD as requested and eliminated the bottleneck issue in SMD Grants Management Services (GMS) by creating a six (6) day metric for the process.
- Grants Activities Branch listened to our customers and eliminated our Grant survey process and incorporated a Quarterly Outreach Forum with each center to have a more face-to-face approach (TEAMS) for sharing ideas and hearing directly from our customers.
- The Grants Activities Branch successfully awarded 1,778 grants valued in excess of $335M in support of numerous missions across all of NASA.
- Successfully completed the Grants Pain Point Project and incorporated several new enhancements and reporting features that will provide a greater customer experience, real time reporting and increased visibility into Grant awards and administration.
- The Research Activities Branch awarded two important Phase III SBIR Contracts for OP valued in excess of $50M: one for the implementation of a contract writing tool and the other for document storage.
- The Research Activities Branch baselined processing performance of Phase I awards in order to gauge the success of an improvement initiative aimed at reducing the number of personnel outside the branch needed to execute the annual Phase I awards.
- The Research Activities Branch awarded a total of 531 new SBIR awards with a total potential value of approximately $300.4M, and also executed over 900 modification actions.

Supporting Small Business

The NSSC met and exceeded all its FY23 goals for the seventh consecutive year. The entire PR team has continued to provide outstanding support to the small business program. This collective effort in identifying new small business procurement opportunities to grow and expand small businesses is the key to the NSSC's success. This collective collaboration also includes the NSSC Management team, including the NSSC Executive Director, Director, Service Delivery, Procurement Officer, and Deputy Procurement Officer. They have all continued to support the NSSC Small Business Program. The success of our program is, of course, the result of many great efforts led by the Small Business Specialist, Troy Miller. In summary, the NSSC PR achieved an overall award percentage of 77.6% of the eligible dollars to small businesses, exceeding our FY23 goal of 72.5% by 5.1%.

Innovations and Continuous Improvement

The NSSC maintains an annual posture of examining processes and procedures for opportunities to improve the way services are delivered.

The largest innovation highlighted herein is automating the Grants end-to-end process. This initiative provided an opportunity to gain efficiencies by refining business processes, enhancing the effectiveness of the work tracking tool (Service Now), and introducing reportable performance metrics for greater transparency and accountability purposes. This project facilitated NSSC PR to easily measure performance against established Service Level Indicators (SLIs), allow customized and canned reporting important to our stakeholders, and now gives us the ability to easily produce important data to assist in analyzing performance trends. The results of the Grants innovations will facilitate data driven decisions for continuous improvement as it continues to deliver critical services to NASA.

Diversity, Equity, Inclusion and Accessibility

NSSC PR continues to lead from the front supporting Diversity, Equity, Inclusion, and Accessibility (DEIA) strategic initiatives. During FY23, NSSC PR held several sessions in staff meetings to spread awareness on a variety of DEIA topics, such as embracing diversity, kindness in the workplace, and emotional intelligence. Additionally, members of NSSC PR attended several Center and Agency offerings, such as Black History Month events, Women's History Month events, Coffee with Ken, Ask the NSSC, Small Business outreach events, Historically Black College and University (HBCU) events, and Category Management and Advancing Diversity, Equity, Inclusion & Accessibility for Underserved Communities in Procurement. Finally, NSSC PR Leadership made concerted efforts to offer members the opportunity to gain experience in other sections through detail assignments, rotational assignments, and augmenting branches for work during peak periods as the team continues to build an inclusive workforce.

Teambuilding and Employee Spotlight

NSSC personnel took time for a teambuilding activity in July by hosting a golf outing. A summer picnic was also held, as well as a bowling event, and painting social. These events were well attended, and the team created many memories and lighthearted moments while strengthening the team chemistry. NSSC PR also held two ends of FY23 parties to celebrate the culmination of another busy and successful year. Finally, NSSC PR personnel continue to be engaged and involved in various ways in the local communities where they reside.

PROCUREMENT OFFICE LOCATION HIGHLIGHTS – NSSC

Members of the NSSC Procurement Team enjoy a team building summer picnic at the Cypress House Pavilion on Stennis Space Center.

Members of the NSSC/SSC Office participated in a painting social.

Stennis Space Center (SSC)

Stennis Space Center, Mississippi

Eli Ouder

Procurement Officer

About SSC

Stennis Space Center is the partner of choice for providing propulsion test capabilities to the nation. Stennis utilizes its unique location and assets to collaborate with other agencies, academia, and industry to develop and test autonomous systems, enhance national security, and increase knowledge of the Earth and its oceans.

Introduction

The Stennis Space Center (SSC) OP supports the missions of NASA and the John C. Stennis Space Center in Mississippi and its approximately 50 agencies, commercial, and academia residents. In FY23, the SSC OP workforce, which consists of 21 civil servant personnel and seven contractor support personnel, conducted 531 actions and $200M in obligations.

Notable Accomplishments

FAC-C Certification Status: By the end on FY23, all SSC personnel were FAC-C certified, having 17 Level III and four Level II certifications.

- During FY23, two SSC personnel received their FAC-C Level II and one received their Level III Certification.
- One SSC employee earned their Federal Acquisition Institute (FAI) Acquisition Credential in CFLD 001 Mid-level Leadership for Acquisition Workforce.
- One received their master's degree in business administration (MBA).
- Five employee CO warrants were increased, and one new warrant was issued, and one employee was promoted.

SSC OP personnel were recognized with a number of awards and other recognitions:

- Silver Achievement Medal; Superior Accomplishment Award for advisory support to the Agency's Requirements Development Team (RDT) for the Administrative Services Product Service Line; two Quality Step Increase Performance Awards; four Individual Contribution Awards for Talent Marketplace Details (2), Commitment to Continuous Process Improvement, and Early Career Achievement awards; Peer Awards from other Center organizations; Space Flight Awareness Silver Snoopy Award; nine On the Spot Awards;

Thirty-six (36) Training Sessions were offered to SSC OP Personnel.

Rocket engine tests at Stennis Space Center.

Photo credit: NASA / Danny Nowlin

Installing SLS rocket onto the B-2 Test Stand.

Milestones

SSC accomplished the following:

- August 11, 2023: Issued a request for proposal for SSC Gaseous Nitrogen Generation Solution (GNGS). This is an innovative Request for Proposal seeking to obtain Gaseous Nitrogen from atmosphere. This is an attempt to not only replace the current method of obtaining Gaseous Nitrogen but to reduce the risk of non-delivery caused by weather events as well as other logistical factors impacting our ability to obtain Gaseous Nitrogen.
- Provided substantial support for the research and ongoing development of requirements supporting the commercialization of the high-pressure gas facility (HPFG) supporting Stennis Space Center's Test Complex. Published a request for information seeking price differences for multiple options, each option defined by flow rates for three separate option periods in order to further define the Helium Compressor requirements for the Center.
- Awarded seven different task orders valued over $1.2M under the Autonomous Services Contract supporting Autonomous Operations for the Agency.
- SSC is adding an additional propellant to the SSC Propellant Portfolio. Liquid Natural Gas (LNG) will be available to SSC's customers for future testing needs. KSC and SSC worked together to include SSC on the Agency-wide LNG requirement contract. By adding this commodity to our propellant portfolio, it provides additional test fuel options to our commercial test customers at an affordable price and easy delivery scheduling. By adding this propellant, SSC reduces the burden on our customers by giving them a one-stop shop for all their testing needs.
- Awarded a Task Order for Architect-Engineer Services for the Development of a design package (Design-Bid-Build) for the demolition of building 1100 center section and Stennis Space Center Plaza requirements for Stennis Space Center.

- Total Cost Savings of $43.4M (with $41.1M being SACOM cost savings).
- SSC exceeded three of its FY23 Small Business (SB) Sub-Category Goals despite unanticipated funding being received and obligated to large business contracts.

Small Business Awards

The SSC Small Business Program Evaluation Awards Committee nominated one Small Business Prime Contractors of the Year, one Small Business Subcontractor of the Year, and the Small Business Specialist of the Year to compete for the NASA Small Business Industry Awards. The 2022 NASA Small Business Industry Awards recognized one SSC Small Business Prime Contractor of the Year.

SSC is working with the newly formed NASA Acquisition Innovation Launchpad (NAIL) team to develop more innovative, efficient procurement processes and ideas. SSC currently has three (3) ideas and one (1) technique submitted to the NAIL team. SSC also participated in two (2) 5-minute short stories for these ideas and techniques which will be added to the NAIL website and shared with the Agency. Stennis Space Center (SSC) Center Operations and Engineering Test Directorate (ETD) had difficulty obtaining critical heavy and utility equipment to support ongoing test complex mission needs. Previous vehicles were costly, and the response time was slow. SSC OP researched available options and identified the General Services Administration (GSA) Short Term Rental (STR) program as an option to the existing process. SSC OP collaborated with SSC stakeholders and GSA representatives and determined the STR program is a viable option to fulfill SSC's equipment needs. The STR process was quickly tested and proved very successful with the first action for which an agreement was established within one week, resulting in cost savings of $84k annually. The GSA STR program provides multiple benefits to NASA and SSC in availability, mobilization and demobilization costs, preventative maintenance, efficiency and responsiveness to customer's needs leveraging existing service delivery capabilities to allows SSC procurement personnel to focus on other agency priorities.

Women's Employer Resource Groups (ERG) (WISE) meeting with Casey Swails.

Diversity, Equity, Inclusion, and Accessibility (DEIA) Engagement

SSC personnel wear several hats, both at work and in their communities.

- SSC personnel supported SSC organizations such as several Employee Resource Groups [African American, Women, Veterans, and Remote & Virtual Employees] and supporting and attending numerous DEIA events and outreach efforts such as Small Business and STEAM events and Student Career Fairs.
- Members of the SSC OP team serve in a number of roles and have participated in many outreach efforts: SSC Ombudsman; voting member/procurement representative to provide procurement advice to the SSC Exchange Operations Board; support to the EMS Cross-Functional Team for the annual Risk Assessment; on other Center's interview boards; Supported

CLOSING & APPENDIX

In Closing

NASA surpassed numerous goals it set out to achieve in FY23, including the launch on the TEMPO mission, the selection of NextSTEP-2 Appendix P Sustaining Lunar Development (SLD) contract to Blue Origin, and the return of OSIRIS-REX.

The combined efforts of the NASA acquisition workforce enabled the success of these missions. During this time frame, the Office of Procurement continued to make significant progress which has increased NASA Spend under Management obligations.

Throughout all of these achievements, the NASA Office of Procurement remained intentional about the professional development of its employees. Through initiatives such as the Executive Leadership Development training, the OP Mentor Program, the Supervisory Cohort Program, and the Supervisory Leadership Forum, OP has steadfastly prioritized the personal and professional growth of each individual across the Enterprise. I extend my gratitude to our workforce nationwide. Your unwavering diligence and innovative spirit have been pivotal in making these achievements possible.

And lastly, thank you for taking the time to read about these milestones and accomplishments. We are motivated and look forward to what we will accomplish next!

Sincerely,

Marvin L. Horne

Deputy Assistant Administrator for Procurement
Agency Procurement Ombudsman & Competition Advocate

Appendix

Abbreviations

A

ARTEMIS: Acceleration, Reconnection, Turbulence and Electrodynamics of the Moon's Interaction with the Sun

ACM: Acquisition Career Manager

ACO: Administrative Contracting Officer

ARDES: Aerospace Research, Development and Engineering Support

APS: Agency Application Platform Services

APC: Agency Program Coordinator

ARC: Ames Research Center

APL: Applied Physics Laboratory

AFRC: Armstrong Flight Research Center

B

BOAs: Basic Ordering Agreements

C

CAM: Coordination and Approval Matrix

CATTS: Consolidated Agency Technology Transfer Services

CCP: Commercial Crew Program

CCoPD: Certified Cost or Pricing Data

CFA: Cognizant Federal Agency

CFR: Code of Federal Regulations

CLP: Continuous Learning Point

CLPS: Commercial Lunar Payload Services

CMD: Contract Management Division

CODSIA: Council of Defense and Space Industry Associations

Commercial LEO: Commercial Low-Earth Orbit

COTS: Content test exemption for iron/steel

COMET: Consolidated Operations, Management, Engineering & Test

CORs: Contracting Officer Representatives

CPAF: Cost-Plus-Award-Fee

CPFF: Cost-Plus Fixed-Fee

CRS: Commercial Resupply Services

CSDA: Commercial SmallSat Data Acquisition

CS: Core Stage

CSI: Cross-Program Systems Integration

CTVs: Crew Transportation Vehicles

D

DRD: Data Requirements Description

DSN: Deep Space Network

DST: Deep Space Transport

DCAA: Defense Contract Audit Agency

DoD: Department of Defense

DOI: Department of Interior

DDT&E: Design, Development, Test, and Evaluation

DITAP: Digital IT Acquisition Professional

DEIA: Diversity, Equity, Inclusion, and Accessibility

CLOSING & APPENDIX

E

ESD: Earth Sciences Division

EBSO: E-Business Systems Office

ERG: Employee Resource Groups

ELM: Enterprise License Management

EPO: Enterprise Pricing Office

ERMs: Enterprise Requirements Managers

EWP: Enterprise Warrant Policy

ESA: European Space Agency

EGS: Exploration Ground Systems

EPOC: Exploration Production and Operations Contract

ESD: Exploration Systems Development

ESAD: Enterprise Service & Analysis Division

EUS: Exploration Upper Stage

F

FAC-C:Federal Acquisition Certification—Contracting

FAC-COR: Federal Acquisition Certification—Contracting Officer Representative

FAI: Federal Acquisition Institute

FAR: Federal Acquisition Regulations

FFRDC: Federal Funded Research and Development Center

FPDS: Federal Procurement Data System

FFP: Firm-Fixed Price

FY23: Fiscal Year 2023

G

GSA: General Services Administration

GRC: Glenn Research Center

GSA: General Services Administration (GSA)

GSFC: Goddard Space Flight Center

GAO: Government Accountability Office

GCAM: Grant and Cooperative Agreements Manual

GPC: Grants Policy and Compliance

H

HQ: Headquarters

HBCU/MSI: Historically Black Colleges and Universities/Minority Serving Institutions

HLS: Human Landing System

HyTEC: Hybrid Thermally Efficient Core

I

IDIQ: Indefinite-Delivery, Indefinite-Quantity

IGCE: Independent Government Cost Estimate

IT: Information Technology

ITPO: Information Technology Procurement Office

IIJA: Infrastructure Investment and Jobs Act

IAAs: Interagency Agreements

ICPS: Interim Cryogenic Propulsion Stage

ISS: International Space Station

ITPOD: IT Procurements on Demand

J

JPL: Jet Propulsion Laboratory

JSC: Johnson Space Center

K

KSC: Kennedy Space Center

KPIs: Key Performance Indicators

L

LaRC: Langley Research Center

LRD: Launch Readiness Date

LVSA: Launch Vehicle Stage Adapter

LGBTQIA+: Lesbian, Gay, Bi, Transgender, Queer, Intersex, and Asexual +

LEO: Low-Earth Orbit

M

MIA: Made in America

MSFC: Marshall Space Flight Center

MPP: Mentor-Protégé Program

MAF: Michoud Assembly Facility

N

NFS: NASA FAR Supplement

NOJMO: NASA Office of Jet Propulsion Laboratory Management and Oversight

NSSC: NASA Shared Services Center

NCMA: National Contract Management Association

NDAA: National Defense Authorization Act

O

OCFO: Office of Chief Financial Officer

ODEO/EEO: Office of Diversity and Equal Opportunity/Equal Employment Opportunity

OFPP: Office of Federal Procurement Policy

OIG: Office of Inspector General

OIIR: Office of International and Interagency Relations

OMB: Office of Management and Budget

OP: Office of Procurement

OSBP: Office of Small Business Programs

OSTEM: NASA Office of Science, Technology, Engineering and Mathematics

P

P-Card: Government Purchase Card

POC: Person of Contact

PPE: Power and Propulsion Element

PALT: Procurement Administrative Lead Time

PCB: Procurement Control Board

PGPD: Procurement Grants and Policy Division

PO: Procurement Officer

PPMs: Procurement Portfolio Managers

PSC: Product Service Code

PSL: Product Service Lines

PP&C: Program Planning and Control

P/PM: Program/Project Managers

P3: Public Private Partnerships

PSOD: Procurement Strategic Operations Division

R

RFI: Requests for Information

RDTs: Requirements Development Teams

S

SBIR/STTR: NASA's Small Business Innovative Research/Small Business Technology Transfer

SMAS IV: Safety and Mission Assurance Services IV

CLOSING & APPENDIX

SMD: Science Mission Directorate

SAO: Senior Accountable Official

SPE: Senior Procurement Executive

SLIs: Service Level Indicators

SAT: Simplified Acquisition Threshold

SBA: Small Business Administration

SBIR: Small Business Innovative Research

STTR: Small Business Technical Transfer

SEB: Source Evaluation Board

SLS: Space Launch System

SSP: Space Shuttle Program

STMD: Space Technology Mission Directorate

SUM: Spend Under Management

SSC: Stennis Space Center

SME: Subject Matter Expert

SLD: Sustaining Lunar Development

SATERN: System for Administration, Training, and Educational Resources for NASA

SAP: Systems Applications and Products in Data Processing

T

TOs: Task Orders

U

USACE: U.S. Army Corp of Engineers

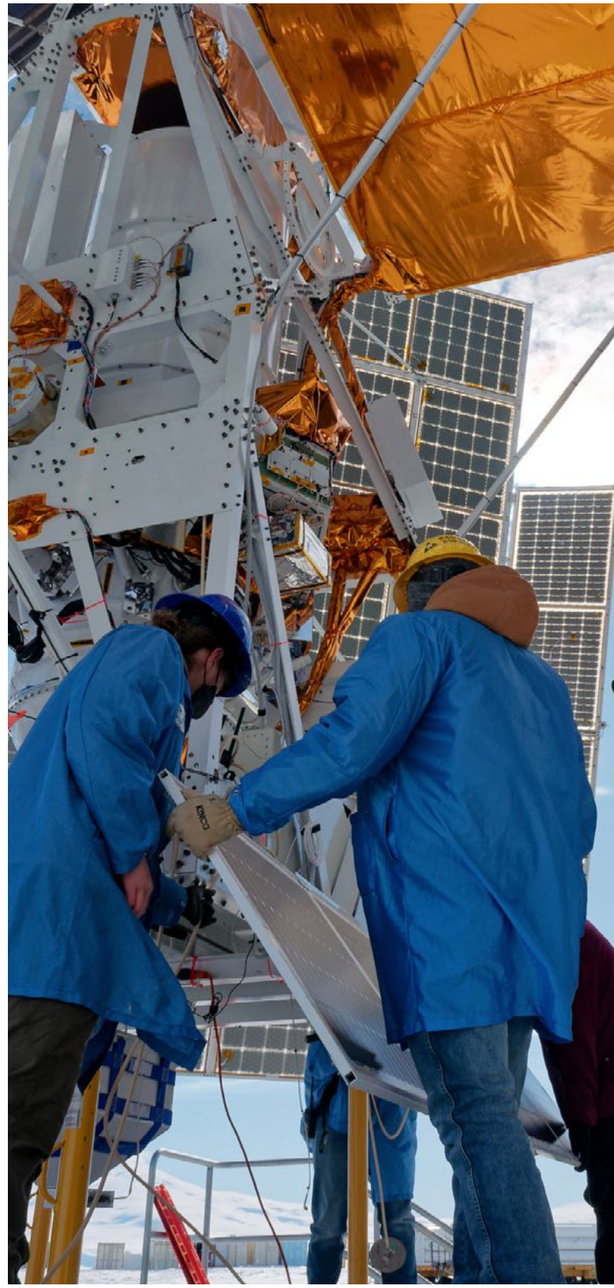
UCA: Undefinitized Contract Action

V

VAB: Vehicle Assembly Building

W

WSTF/WSC: White Sands Test Facility/ White Sands Complex



GUSTO scientific balloon launch in Antarctica.

Glossary

The data contained in this publication were compiled on the basis of the definitions given below:

1. Sealed Bids: Procurement actions resulting from acceptance of bids made by contractors in response to invitations for bid.

2. Award: See procurement action.

3. Coverage:

- Summary data are provided in terms of obligations on all procurement actions (see item 8). The obligation data are obtained from the Federal Procurement Data System (FPDS-NG).
- Detailed data: Information on procurements include all contracts, grants, and cooperative agreements. Wherever exclusions apply, a generalized footnote is provided.

4. Intragovernmental: Procurement actions placed through other Government agencies, except orders placed under Federal Supply Schedule contracts and awards to small, disadvantaged businesses through the SBA under section 8(a) of the Small Business Act.

5. Modifications: Any written alteration in the specifications, delivery point, contract period, price, quantity, or other contract requirement of an existing contract, whether accomplished by unilateral action in accordance with a contract clause or by mutual agreement of the parties to the contract. It includes (a) bilateral actions, such as supplemental agreements, and (b) unilateral actions, such as change orders, notices of termination, and notices of the exercise of an option.

6. Competitive: Procurements where offers are solicited from more than one responsible offeror capable of satisfying the Government's requirements wholly or partially, and the award or awards were made on the basis of price, design, or technical competition.

7. Other Than Competitive: Procurements where an offer was solicited and received from only one responsible offeror capable of satisfying the Government's requirements wholly or partially. (Includes contracts resulting from unsolicited proposals.)

8. Procurement Action (Award): Any contractual action to obtain supplies, services, or construction that increases or decreases funds, including the following:

- Letter contracts or other preliminary notices of negotiated awards. *f* Definitive contracts, including purchase orders.
- Orders under GSA Federal Supply Schedule contracts and BOAs (Basic ordering agreements) and against indefinite-delivery–type contracts.
- Intragovernmental orders.
- Supplemental agreements, change orders, administrative changes, and terminations to existing procurements.

9. Small Business: For purposes of Government procurement, a small business is a profit-making concern, including its affiliates, which is independently owned and operated, is not dominant in its field and further qualifies under the size standards criteria of the Small Business Administration. These criteria are published under title 13 of the Code of Federal Regulations, section 121.3-8, and in the Federal Acquisition Regulation, part 19, subpart 19.1. For service industries, the size standard generally is based on average annual receipts over a 3-year period, depending on the service to be procured. Generally, in the case of agricultural or manufactured products, the size standards are determined on the basis of number of employees. The applicable size standard is prescribed in each NASA solicitation.

Awards with Performance Outside of U.S.

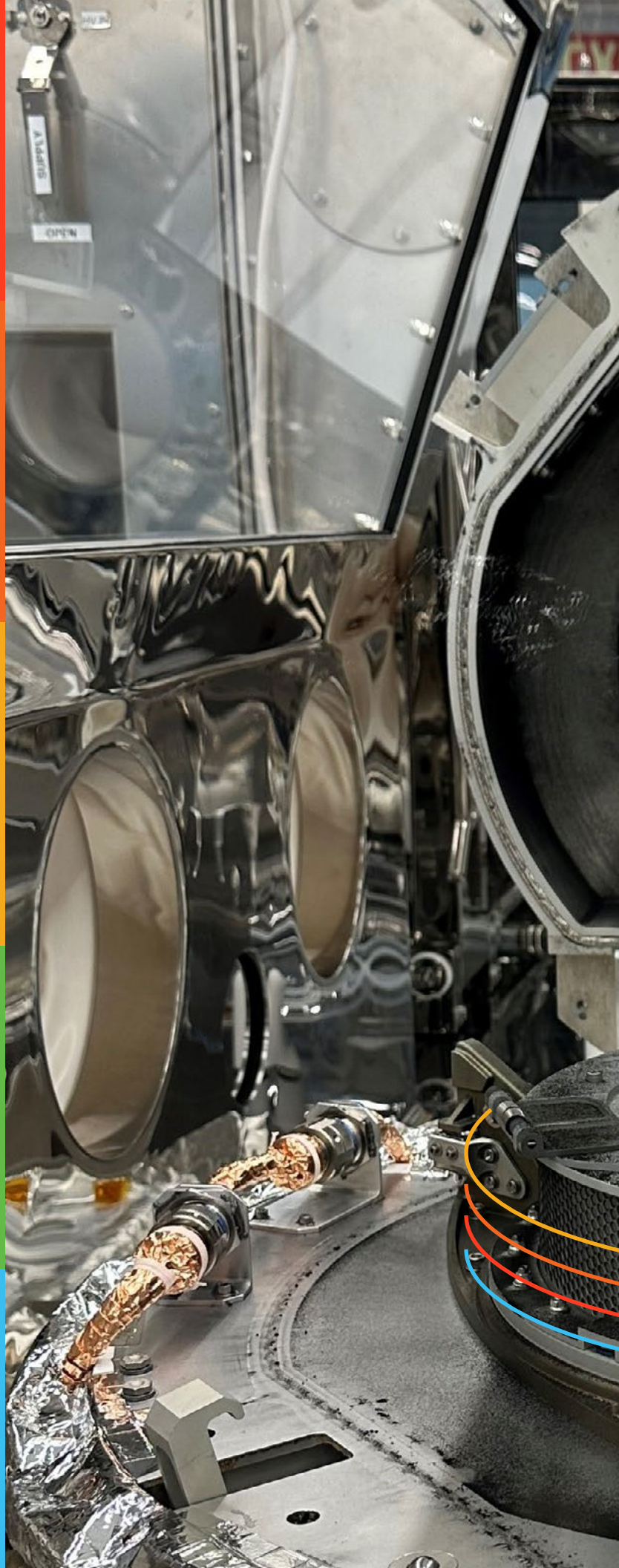
Country of Performance	Total Obligations	Total FY Actions
RUSSIA (RUS)	$30,826,985.00	26
SPAIN (ESP)	$13,394,127.78	8
CANADA (CAN)	$13,356,309.96	79
NORWAY (NOR)	$1,883,230.77	8
BRAZIL (BRA)	$1,520,959.51	2
ESWATINI (SWZ)	$1,183,932.70	6
NETHERLANDS (NLD)	$990,744.27	11
ITALY (ITA)	$900,000.00	2
FRANCE (FRA)	$556,920.08	6
UNITED KINGDOM (GBR)	$542,156.62	19
GERMANY (DEU)	$534,849.45	15
AUSTRALIA (AUS)	$366,551.05	11
SWITZERLAND (CHE)	$323,386.00	6
DENMARK (DNK)	$215,644.88	5
UKRAINE (UKR)	$188,000.00	1
PERU (PER)	$167,413.08	4
JAPAN (JPN)	$147,821.40	3
SWEDEN (SWE)	$101,860.00	2
TAIWAN (TWN)	$67,635.00	3
NEW ZEALAND (NZL)	$57,291.41	1
KOREA, SOUTH (KOR)	$40,700.00	2
IRELAND (IRL)	$29,890.68	1
COSTA RICA (CRI)	$20,000.00	1
SLOVAKIA (SVK)	$17,499.04	1
LUXEMBOURG (LUX)	$-	1
CHILE (CHL)	$(36,553.00)	1
GRAND TOTAL	**$67,397,355.68**	**225**

Not quite stars, not quite planets — brown dwarfs are objects that fall in between. Within the star cluster shown in this image, Webb observed the tiniest, free-floating brown dwarf ever discovered.

Photo credit: James Webb Telescope

A view inside a glass and stainless steel glovebox containing the OSIRIS-REx asteroid sample return canister.

Photo credit: Dante Lauretta



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