The NASA Office of Small Business Programs (OSBP) is pleased to present the winners of the FY16 cycle of the NASA Small Business Advocates Awards (SBAA) and Small Business Industry Awards (SBIA) programs. Since FY08, the SBAA and SBIA awards have been given to deserving civil servants and companies, respectively, who have worked hard to support the Agency’s small business program and its missions. All SBAA and SBIA Center-level awards are presented at their sponsoring Center. The FY16 SBIA Agency-level awards were presented at the 2017 spring NASA Industry Forum meeting at Headquarters on February 28. Making the awards presentations were NASA Acting Deputy Administrator Lesa Roe and OSBP Associate Administrator Glenn A. Delgado. To learn more about NASA’s small business awards programs, visit [http://www.osbp.nasa.gov/award.html](http://www.osbp.nasa.gov/award.html). Please join OSBP in congratulating the individuals and companies listed below!


**MISSION STATEMENT**

Our mission in the Office of Small Business Programs is to:

- ensure that the Agency is compliant with all Federal laws, regulations, and policies regarding small and disadvantaged business utilization; and
- provide expertise on the utilization of all categories of innovative small businesses, including minority serving institutions that can deliver technical solutions in support of NASA.

**List of Core Functions**

**Advocacy:** Advise the Administrator on all matters related to small business.

**Promote Small Business:** Develop and manage NASA programs that assist all small business categories and communities.

**Small Business Focused Government Contracting:** Develop small businesses in high-tech areas that include technology transfer and commercialization of technology, and maximize the number of practicable opportunities for small business participation in NASA prime contracts and subcontracts.

**Entrepreneurial Development:** OSBP and NASA Centers provide individual face-to-face and Internet counseling for small businesses throughout the United States and in U.S. territories.

**VISION STATEMENT**

The vision of the Office of Small Business Programs (OSBP) at NASA Headquarters is to promote and integrate all small businesses into the competitive base of contractors that pioneer the future of space exploration, scientific discovery, and aeronautics research.

**Inside This Issue**

| Industry Achievement at NASA | 1 |
| AA’s Corner | 4 |
| Important Dates to Remember | 9 |
| HEOMD Update: Small Business Spotlight, ZIN Technologies | 5 |
| STMD Update: NASA SBIR/STTR Program | 6 |
| Small Business Technical Advisor Spotlight: Carolina Blake | 7 |
| Small Business Specialist Spotlight: Kay Doane | 7 |
| Lockheed Martin Master Agreements | 8 |
| Small Business Administration Scorecard | 9 |
| Metrics Update | 9 |
| NASA Mentor-Protégé Program Update | 10 |
| Regional Outreach Events | 10 |
| HEOMD Update: Small Business Innovation Enables Big Missions | 11 |
| OSBP Welcomes New Administrative Support Contractors | 12 |
| OSBP Publications | 12 |
| NASA Vendor Database Subcontracting Module | 13 |
| OCIO Update: Cybersecurity in the Cloud Gaining Trust | 13 |
| NASA Center Highlight: NASA Ames Research Center | 14 |
| Upcoming Small Business Week Exhibit at NASA Headquarters | 14 |
| NASA Center Highlight: Mission Support Directorate | 15 |
| Social Media Update | 15 |
| NASA Small Business Legislative Update: Similarly Situated Entities | 16 |
Industry Achievement at NASA (continued)

FY16 NASA Agency-Level Small Business Advocates Awards Winners

**Small Business Specialist of the Year**
Robert E. Watts
Stennis Space Center

**Small Business Technical Advisor/Coordinator of the Year**
Virginia B. Garrison
Marshall Space Flight Center

**Procurement Team of the Year**
Mission Services Contracting Branch Team
Langley Research Center
Richard T. Cannella
Curtis M. Hyman

**Technical Team of the Year**
Flight Operations Directorate (FOD) Acquisition Strategy Team (FAST)
Johnson Space Center
Joy L. Barckholtz
Rosalie Carpenter
Linda P. DeLapp
Robert J. Durkin
Kevin J. Lesinski
Blair A. Nader
Eric J. Wolfer

**Program/Science/Research and Development Person of the Year**
Ellen B. Sydnor
Langley Research Center

FY16 NASA Agency-Level Small Business Industry Awards Winners

**Small Business Prime Contractor of the Year**
Cepeda Systems & Software Analysis, Inc. (CSSA)
Marshall Space Flight Center
Lesa Roe, NASA Acting Deputy Administrator; Sandra Cepeda, CSSA President and CEO; Helen Housch, CSSA Software Engineering Division Director; Cheri Bowab, CSSA, NASA MSFC Project Lead; Glenn Delgado, NASA OSBP Associate Administrator

**Small Business Subcontractor of the Year**
Atec, Inc.
Johnson Space Center
Lesa Roe, NASA Acting Deputy Administrator; Brian Durbin, Atec Vice President; Ben Wilking, Space Systems Engineering Manager; Howard Lederer, Atec CEO and Chairman; Paul Fenley, Atec President; Glenn Delgado, NASA OSBP Associate Administrator

FY16 Center-Level NASA Small Business Industry Awards Winners

**Center-Level Small Business Prime Contractors of the Year**
DEI Construction, Inc.
Ames Research Center
Logical Innovations, Inc.
http://www.logical-i2.com
Armstrong Flight Research Center
Summit Technologies & Solutions, Inc.
http://www.summit-ts.com
Glenn Research Center
Sure Secure Solutions, LLC
http://www.suresecsolutions.com
Headquarters

**Center-Level Small Business Subcontractors of the Year**
Nanoracks, LLC
http://www.nanoracks.com
Johnson Space Center
Abacus Technology Corp.
http://www.abacustech.com
Kennedy Space Center
Cornell Technical Services, LLC
http://www.cts-llc.com
Langley Research Center
Cepeda Systems & Software Analysis, Inc.
http://www.cepedasystems.com
Marshall Space Flight Center
Four, Inc.
http://www.fourinc.com
NASA Shared Services Center
A2 Research, JV
http://www.asquaredresearch.com
Stennis Space Center
Large Business Prime Contractor of the Year
Jacobs Technology, Inc.
Kennedy Space Center
Lesa Roe, NASA Acting Deputy Administrator; Kate Krammiller, VP, Government Relations, Jacobs; Terry Hagen, President, Aerospace and Technology for Jacobs; and Peter Montgomery, Director of Commercialization, Jacobs Space Operations Group (JSOG); Glenn Delgado, NASA OSBP Associate Administrator

Mentor-Protégé Agreement of the Year
Teledyne Brown Engineering, Inc. (Mentor)
University of Nevada, Las Vegas (Protégé)
Marshall Space Flight Center
Lesa Roe, NASA Acting Deputy Administrator; Debbie Batson, Director, Large/Small Business Strategic Alliances; Steve Kuffner, Executive VP of Operations and Program Execution; Zachary Miles, Associate VP for Economic Development, UNLV; Dwight Mosby, Director, Mission Operations and Integration Contract; Glenn Delgado, NASA OSBP Associate Administrator

Center-Level Small Business Subcontractors of the Year
Metis Technology Solutions, Inc.
http://www.metas-tech.com
Ames Research Center
Solution One Industries, Ltd.
http://www.1soi.com
Armstrong Flight Research Center
Navteca, LLC
http://www.navteca.com
Goddard Space Flight Center

AECOM Technical Services, Inc.
http://www.aecom.com
Ames Research Center
Jacobs Technology, Inc.
http://www.jacobs.com
Armstrong Flight Research Center
Aerojet Rocketdyne, Inc.
http://www.rocket.com
Glenn Research Center
Parsons
http://www.parsons.com
Goddard Space Flight Center
Jacobs Technology, Inc.
http://www.jacobs.com
Johnson Space Center
Jacobs Technology, Inc.
http://www.jacobs.com
Kennedy Space Center
Jacobs Technology, Inc.
http://www.jacobs.com
Marshall Space Flight Center
Science Applications International Corp.
http://www.saic.com
NASA Shared Services Center

Center-Level Mentor-Protégé Agreements of the Year
AECOM Technical Services, Inc. (Mentor) and AE3 Partners, Inc. (Protégé)
http://www.aecom.com;
http://www.ae3partners.com
Ames Research Center
Parsons (Mentor) and EBA Engineering, Inc. (Protégé)
http://www.parsons.com;
http://www.ebaengineering.com
Goddard Space Flight Center
Jacobs Technology, Inc. (Mentor) and HX5, LLC (Protégé)
http://www.jacobs.com;
http://www.hexfive.com
Johnson Space Center
Teledyne Brown Engineering, Inc. (Mentor) and University of Nevada, Las Vegas (Protégé)
https://www.tbe.com;
https://www.unlv.edu
Marshall Space Flight Center

NASA Small Business Awards Programs Point of Contact
Truphelia M. Parker • 202-358-2088 • truphelia.parker-1@nasa.gov
For those familiar with the NASA Office of Small Business Program’s (OSBP) newsletter, you may notice this edition is longer than normal. We have decided to move from a quarterly publication to a biannual one in order to provide more substantial and in-depth information on a regular schedule. I hope you enjoy the new format and the information within.

This is my first write-up since former NASA Administrator Charles Bolden left the Agency in January 2017. Since his appointment in 2009, Bolden’s recognition of the contributions small businesses make to the NASA mission and his unwavering support of the program has made the NASA Office of Small Business Programs one of the top programs in the Federal Government. His support of the program greatly influenced the culture of NASA, making it significantly more inclusive of small businesses in the Agency’s various missions. Now that this foundation has been set, the program is part of NASA’s fabric and will continue to be an integral part of all our future missions. Both the Agency and I will greatly miss his steadfast leadership and friendship.

Since our last newsletter, we have hosted several successful outreach events, including Industry Days, our ongoing HBCU/MSI Technology Infusion Road Tour, and regional events. These efforts are pivotal to reaching our small business goals in all socio-economic categories, as well as increasing NASA’s small business base. Based on these types of events, it appears that despite missing our fiscal year 2016 (FY16) Small Business goal of 16.75 percent assigned to us by the Small Business Administration (actual achievement was 16.7 percent), NASA should achieve a grade of “B” on the annual small business scorecard. I am very proud to say that due to the entire Agency’s effort, the dollars awarded to small businesses have increased in both prime and subcontracting awards over the last 3 fiscal years. Between FY14 and FY16, the prime dollar awarded directly to small business increased by approximately $174 million, a 6.99 percent increase, and subcontracting awards by our large prime partners increased by approximately $265 million, a 11.40 percent increase. This equates to a total increase of approximately $439 million over this 3-fiscal year timeframe, a 9.12 percent increase. As stated above, these accomplishments demonstrate that the NASA Small Business Program is clearly integrated in all NASA missions.

I would like to take the time to honor and congratulate the Center-level FY16 NASA Small Business Industry Awards (SBIA) winners and especially the Agency Level Industry Award winners, as well as the Small Business Advocates Award winners that are highlighted in this publication. They have all earned this well-deserved recognition, and my heart feels gratitude for their support of the NASA Small Business Program.

I also want to thank the best small business specialists (SBSs) in the Federal Government (of course they are the NASA SBSs), the various NASA offices that work with OSBP incorporating small businesses into our missions, our prime contractors that provide meaningful subcontracting opportunities to our small business partners, and everyone that supports the Office of Small Business Programs.

I hope all have a safe, healthy, and enjoyable spring and summer and take some time to enjoy life and your families.

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**Important Dates to Remember**

- **May 9, 2017**
  Huntsville, AL
  [http://osbp.nasa.gov/calendar-osbp.html](http://osbp.nasa.gov/calendar-osbp.html)

- **June 1, 2017**
  FY17 NASA Regional Outreach: Fostering Nevada Small Business Innovation for Mission Success
  North Las Vegas, NV
  [http://osbp.nasa.gov/calendar-osbp.html](http://osbp.nasa.gov/calendar-osbp.html)

- **June 12–15, 2017**
  VETS 2017
  Norfolk, VA

- **August 8, 2017**
  NASA Armstrong Flight Research Center HUBZone Industry Day
  Los Angeles, CA
  [http://osbp.nasa.gov/calendar-osbp.html](http://osbp.nasa.gov/calendar-osbp.html)

- **August 22–24, 2017**
  FY17 NASA HBCU/MSI Technology Infusion Road Tour
  Jackson State University
  [http://osbp.nasa.gov/calendar-osbp.html](http://osbp.nasa.gov/calendar-osbp.html)

- **September 26, 2017**
  FY17 NASA Regional Outreach: Washington State Regional Outreach Event
  Seattle, WA
  [http://osbp.nasa.gov/calendar-osbp.html](http://osbp.nasa.gov/calendar-osbp.html)
ZIN Technologies, Inc., provides engineering and product development services and products to the aerospace community. Our organization of more than 250 employees consists of scientists, engineers, designers, technicians, and administrative personnel. Primary customers are the National Aeronautics and Space Administration (NASA); Department of Defense (DOD); and prime contractors such as Wyle, Ball Aerospace, Sierra Nevada Corporation, and Aerojet. ZIN is a minority-owned small business located in Cleveland, OH, and is AS 9100–registered, supporting research and development and space flight hardware programs in the aerospace/aeronautic industry for over 60 years. We provide design, development, engineering, production, and system integration across various space flight programs and projects. We provide test and evaluation of advanced aerospace systems and support the full life-cycle development of aerospace hardware and software. Our engineers are experts in custom and commercial avionics, structural analysis, thermal management, dynamics analysis and vibration isolation, power, imaging, diagnostics, and electro-optics systems.

ZIN’s first NASA contract was awarded in 1969 to provide design and drafting services. ZIN’s capabilities have evolved since Apollo to now developing facility class payloads that are flown on the International Space Station (ISS). We have evolved to provide complex satellite and space vehicle systems. ZIN started operating its first research and production facility for the assembly and manufacture of space experiments in 1999 in Cleveland, OH.

**Glenn Research Center:** ZIN provides space flight hardware for the Glenn Research Center physical sciences microgravity research program under the Space Development and Operations Contract (SpaceDOC NNC14CA02C) and a number of other in-space propulsion projects. To date, over 75 percent of the physical science research on ISS has been developed and operated by ZIN. ZIN built and operated the first ISS payload, Physics of Colloid in Space (PCS), and continues to operate the longest running ISS payload, the Space Acceleration Measurement System (SAMS). Recently, ZIN was awarded the 2016 Space Flight Awareness Supplier Award by the ISS Program.

ZIN has had success in the NASA SBIR program. ZIN and the Cleveland Clinic Foundation (CCF) established a new company to commercialize a NASA SBIR-derived wireless bio-monitoring technology called vMetrics. The vMetrics system is a compact ambulatory biometric data-monitoring device for commercial and military use. vMetrics was named one of NASA’s Hallmark success stories and was featured during NASA’s 50th anniversary celebrations. vMetrics completed Remote Patient Management (RPM) clinical trials in atrial fibrillation post ablation, total knee replacement, and anticoagulation management at the Cleveland Clinic. The vMetrics System defines the state of the art in mobile wireless physiological monitoring, providing a small modular and extensible platform to meet various RPM protocols.

**The Future:** ZIN is focused on supporting the future of manned and unmanned space travel. We are aligning our core capabilities with major national thrust areas that include NASA and DOD programs, as well as commercial exploration. NASA is designing and building capabilities to send humans farther into the solar system than ever before, including to an asteroid and Mars. ZIN’s contributions include fire safety and prevention and the Human Health Countermeasures (HHC) capability that examines the normal physiologic effects of space flight and develops countermeasures for those with detrimental effects on human health and performance. ZIN also supports a new generation of commercial payloads for a wide range of new scientific research with direct application to products here on Earth. We are also proud to be part of the Aerojet-Rocketdyne team helping design and build the power system for the Sierra Nevada DreamChaser commercial cargo spacecraft and providing the power processing units for next-generation ion thrusters.

**ZIN TECHNOLOGIES, INC.**
6745 Engle Road, Airport Executive Park
Middleburg Heights, OH 44130
T: 440-625-2200 | F: 440-625-2234
http://www.zin-tech.com

**Socioeconomic Category:**
Minority-Owned Small Business

Daryl Z. Laisure, CEO/President
440-625-2200
laisured@zin-tech.com

Brian D. Finley, V.P., SpaceDOC Program Manager
440-625-2200
finleyb@zin-tech.com
Space Technology Mission Directorate Update

NASA SBIR/STTR Program

G.M. Green, Director for Communications and Operations
NASA Headquarters Space Technology Mission Directorate

With an impressive annual repertoire of over 500 awarded contracts, worth in excess of $200 million, the NASA Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs bring concept to reality. Recognizing the critical role of American Small Business Concerns (SBC) and Research Institutions (RI) is the first step in driving the development of innovation engines for new space technologies that will enable future space exploration. Through NASA’s SBIR and STTR programs, these SBCs and RIs have the opportunity to transcend the status quo in the areas of space transportation for human and robotic missions, spacecraft systems operations, cognitive space communications networks, and more—technologies that may one day find their way into the vehicles and systems used to explore the solar system. The programs continually adapt to commercial and political environments, always with the vision of better serving the small business community. This cycle in which a small firm leverages NASA SBIR/STTR resources to grow its number of employees and to design and manufacture technologies that benefit the Nation is what we call a success story.

One such success story comes from the Colorado-based NASA SBIR/STTR firm, Black Swift Technologies. Through SBIR program funding, this firm created a small unmanned aircraft system (sUAS) to help NASA get a clearer picture of soil moisture, thus helping to pinpoint crops on multi-acre farms in need of water. NASA’s Soil Moisture Active Passive mission utilizes satellite technology to monitor droughts, predict flooding, and assist in crop productivity; however, the gradation of Earth’s surface can easily be missed by satellites. Black Swift Technologies has designed a low-cost sUAS that provides measurement of volumetric soil moisture content over agricultural plot–sized areas to support water management, as well as agriculture, flood, fire, and drought hazard monitoring. This technology and data gathered by the sUAS have potentially far-reaching benefits. Scientists can use this information to improve weather forecasting; and farmers can use the data to determine where water is needed most and the level of fertilizer required in the soil, row by row. Black Swift Technologies is further capitalizing on its success with the SBIR program by collaborating with NASA to explore volcanoes in order to improve air traffic management systems, thus avoiding airport shutdowns similar to the one caused by the 2010 volcano eruption in Iceland. To read more about this and other success stories, visit http://sbir.nasa.gov/success-stories.

The SBIR and STTR programs are highly competitive and encourage domestic small businesses to work with NASA to advance proposed innovations and transition-effecting technologies, products, and services into NASA mission programs and other markets. To learn more about the program, visit http://www.sbir.nasa.gov, or plan to participate in the next NASA SBIR/STTR sponsored subtopic workshop in June 2017. This event will facilitate communication for industry, small businesses, investors, and more, encouraging an exchange of ideas with the NASA SBIR/STTR program, Mission Directorate representatives, and NASA technologists on how to best work with one another for the Nation, space exploration, and humankind.
Small Business Technical Advisor (SBTA) Spotlight  
Carolina Blake, Small Business Technical Advisor  
NASA Ames Research Center

I have been associated with NASA Ames Research Center—both as a Federal employee and as a member of the industry supporting the NASA mission—since the early 1990s. Prior to that, I worked in business development, strategic planning, marketing, and contracting in the United States, Europe, Africa, and South America. My training and experience in both the national and international arenas has helped me ensure mission effectiveness and performance successes that have generated robust partnerships for both NASA and industry.

Early in my NASA career, I directed a variety of efforts that included the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs at Ames. My work focused on development of public-private strategic partnerships and alliances to foster the transfer and commercialization of NASA-funded research and technology to U.S. industry. As the Director of the Ames Technology Transfer and Commercialization Office in the late 1990s, I ran one of the most successful business incubators in the Agency.

Currently, I am detailed to the Office of the Center Director at Ames, where I support the Associate Center Director for Research and Technology in a variety of functions, such as the coordination of projects with other Federal laboratories in California. I am also the Ames representative for the Agency Regional Economic Development Initiative (RED). RED is a fairly new NASA effort (it is less than 5 years old) that aims to spark economic growth by partnering NASA researchers and engineers with regional businesses. This initiative aims to increase the NASA presence and NASA technology relevance in the U.S. regions through targeted efforts. I have found this effort to be very synergistic with my role of Small Business Technical Advisor.

I am fluent in several languages and am an active supporter of small business. I understand what it means to be a minority woman and to run a small business, so the experiences I relate are personal. In addition, I have served as the Ames Dean of Students for several years and seen our student population almost double over the past few summers. I am a long-time mentor, both to students here and abroad, as well as to early-career employees.

My favorite part of the job is the interaction with small businesses. All businesses started as a “small business” at some point in their development. Assisting my Center SBS in counseling small, high-tech firms is a job I truly enjoy.

With minimal or no significant growth in Federal budgets in the future, the competition for small business may become more challenging. However, small businesses have fresh ideas and most of the time their approaches are novel and lean; they also bring to the table a real enthusiasm for the NASA mission. These qualities should allow them to continue to participate and grow in NASA small business programs.

Small Business Specialist Spotlight  
Kay Doane, Small Business Specialist  
NASA Stennis Space Center

I currently live in Carriere, MS, but I am originally from New Orleans. I have three siblings—two older brothers and an identical twin sister. My parents were wonderful role models. My dad was a civil servant, who served 27 years in the Coast Guard Reserve. My mom is a person who can fix anything in the home and taught me well. My husband Tim and I have been married 22 years and have two great sons. Derek is a junior at the University of Southern Mississippi, and David is a senior at Pope John Paul High II School. Following my parents’ guidance, I joined the Air Force Reserves in 1989 and retired in 2009. I started my career in 1992, working for the Department of the Navy in the area of finance, before transferring briefly to the Defense Information Systems Agency (DISA), after which I joined the NASA Shared Services (NSSC) in 2005. In 2013, I accepted a detail to Procurement within the NSSC to start my career as a Contract Specialist. I hold a bachelor’s degree in business administration from Grantham University. I received my Federal Acquisition Certification (FAC) Level I in 2013 and my FAC Level II in 2015. In February 2017, I transferred to Stennis Space Center to work as the Small Business Specialist in the Office of Procurement.

I believe that small business is what keeps our economy and neighborhoods strong. I like knowing I can make a difference in helping a small business succeed and also ensure that NASA gets the end product or service needed to continue our mission.

I enjoy interacting with vendors, learning what they are capable of, and then being able to provide information to help them begin working with the Government.

Cash flow is always a concern. In today’s economy, funds are tight, and loans are harder to get. If a small business does not have access to a sufficient amount of funds, it will not be able to compete with the larger companies. This is one of the reasons I support the small business goals by creating set-asides.
Lockheed Martin Master Agreements

Tabisa T. Kalisa, Program Manager
NASA Office of Small Business Programs

The fiscal year is off to a great start for both past and present participants of the Historically Black Colleges and Universities and Minority Serving Institutions (HBCUs/MSIs) Technology Infusion Road Tour. On October 11, 2016, Lockheed Martin entered into two 5-year collaborative master agreements: one with an HBCU, Florida A&M University (FAMU), and one with an MSI, University of Nevada–Las Vegas (UNLV).

Each master agreement has a maximum funding of up to $5 million and will grant each university’s faculty, staff, and students the opportunity to work with one of NASA’s large prime contractors, supporting the Orion Multi-Purpose Crew Vehicle and other Lockheed Martin space exploration projects. Through a series of task orders related to space exploration, Lockheed Martin will not only help NASA meet its mission, but also support the Agency’s 1 percent HBCU/MSI goal.

“FAMU is excited about the opportunity for our talented faculty and students to work with the Lockheed Martin and NASA teams on the journey to Mars,” says FAMU Interim President Dr. Larry Robinson. “The FAMU-FSU College of Engineering’s world-class researchers and laboratories will help make discoveries and develop new technologies needed for deep space exploration.”

“Lockheed Martin has always been a leader in space exploration, and we are excited about collaborating with them on projects for their civil space programs,” said Rama Venkat, Dean of the [UNLV] Howard R. Hughes College of Engineering. “This partnership will provide unique opportunities for our students to enhance their knowledge and research capabilities in exciting new areas and help accelerate the efforts of Lockheed Martin research activities and the Nation’s ambitious space program.”

Both universities have participated in the NASA Mentor-Protégé Program in the past and continue to benefit and utilize the resources available at NASA to contribute to the mission of deep space exploration. FAMU and UNLV are harnessing the developmental assistance leveraged from their respective Mentor-Protégé Agreements. Lockheed Martin’s interest in partnering with UNLV stems from the university’s successful collaborations with Teledyne Brown Engineering, LLC (TBE). The TBE and UNLV Mentor-Protégé Agreement enabled UNLV students to work on space program training development. In addition, Lockheed Martin talked with OrbitalATK, a former Mentor of FAMU, about the successful Mentor-Protégé Agreement the company held with the HBCU, which stands as an example of the benefits of the NASA Mentor-Protégé Program.

We look forward to hearing wonderful success stories from Lockheed Martin, FAMU, and UNLV!
The Good News for 2017

A long, long, time ago, 1980 to be exact, Steve Martin’s first foray into the cinematic arts hit the screens. In *The Jerk*, Martin’s character Navin Johnson explodes with joy because “the new phone book is here! The new phone book is here!” To this day, whenever a new phone book is dropped off on my porch, I celebrate just as Navin did, just for giggles. Such was my affinity for the wild and crazy guy in my late grade-school days.

“What’s the metaphor”? you’re no doubt asking. Welp, now that it is FY17, guess what? The new scorecard is here! The new scorecard is here!

That would be, of course, the new Small Business Administration (SBA) scorecard, which doubles the weighting of subcontracting metrics from 10 to 20 percent. This should be a very good thing indeed for NASA and our scorecard grade going forward, thanks to our consistently strong subcontracting numbers. In fact, the somewhat early returns on our FY16 metrics suggest that the new scorecard methodology would result in a numerical grade over 6 points higher (over half a letter grade) than the previous methodology. As the scorecard weighting doubles, so then does the importance, and the visibility, of our prime contractors’ subcontracting programs. For this change, we can thank Congress, which mandated changes to the scorecard via the National Defense Authorization Act (NDAA) of 2016.

As of now, the SBA still grades agencies on its subcontracting metrics as a percentage of total subcontracting dollars, since that is the method still prescribed by the Small Business Act. While NASA has emphasized the total contract value method for a long time, the scorecard change means we need to pay more

Continued on page 11
The Office of Small Business Programs’ Mentor-Protégé Program had a very busy fiscal year balancing multiple Mentor-Protégé Agreement kickoff meetings, Agreement renewals, the Marshall Space Flight Center Historically Black Colleges and Universities and Minority Serving Institutions (HBCU/MSI) Joint Counseling Session, and the NASA HBCU/MSI Technology Infusion Road Tour. We are ready to enter FY17 with new and exciting Mentor-Protégé Program events.

FY16 Closeout
The Office of Small Business Programs ended FY16 with full momentum, closing out the year with the last NASA HBCU/MSI Technology Infusion Road Tour at Florida Agriculture and Mechanical University (FAMU) from September 27 to 29, 2016. The City of Tallahassee and FAMU welcomed a wide array of attendees, including NASA prime contractors, small businesses, and university representatives from across the country, to the Challenger Learning Center. Over 150 attendees received a warm welcome from the City of Tallahassee’s Mayor Andrew Gillum, Chief of Staff at the Office of the Mayor Dustin Daniels, and Interim President at FAMU Dr. Larry Robinson.

We would like to thank the prime contractors, small businesses, and Federal Government agencies that were able to support this Road Tour. NASA prime contractors including Aerojet Rocketdyne, Jacobs Technology, Lockheed Martin, SAIC, SGT, Inc., Teledyne Brown Engineering, OrbitalATK, Raytheon Company, The Boeing Company, and UTC Aerospace Systems have provided continuous support through their participation at all FY16 Road Tour events. The small businesses in attendance—Abacus Technology, Leaping Catch, LLC, Gordon Nelson and Associates, MRI Technologies, and Millennium Engineering and Integration Company—shared their success stories from working with the Agency. The participating Federal Government agencies—the Department of Army and Department of Navy—provided information on their Mentor-Protégé Program and SBIR/STTR programs.

FY17 Update and Outlook
The NASA OSBP would like to welcome our newest Protégés to the Mentor-Protégé Program: Ignite Fueling Innovations, LLC, and Crm Solutions, Inc. Ignite Fueling Innovations and its Mentor SAIC have marked a milestone at the NASA Shared Services Center (NSSC), creating the first-ever Mentor-Protégé Agreement at the Center. Congratulations to Troy Miller, the NSSC SBS, for working diligently to get an Agreement down in history. We look forward to more Mentor-Protégé Agreements from NSSC.

Crm Solutions, Inc., has teamed with Mentor Jacobs Technology, Inc., at Marshall Space Flight Center. This agreement will allow Crm Solutions to obtain training and business development support from Jacobs Technology. Congratulations to David Brock, MSFC SBS, JoAnn Belt of Jacobs Technology, Bobby Holden, Contracting Officer (CO), and T.K. Pendergrass, CO Representative.

The FY17 HBCU/MSI Road Tour is rolling at full steam, making a stop already at the University of Nevada–Las Vegas January 10–12, 2017. The event was well-attended with 100 attendees comprised of delegates from NASA and other Government agencies, prime contractors, and various university representatives. Tennessee State University is the next Road Tour stop on April 4–6, 2017, followed by Jackson State University on August 22–24, 2017.

The 3rd Annual HBCU/MSI Partnerships Meeting will be held in Huntsville, AL, on February 22, 2017. For information on any event, please contact the Office of Small Business Programs at 202-358-2088. We hope to see you on the Road Tour!
Small Business Administration (SBA) Scorecard (continued)

attention to the SBA method. This includes Contractor Performance Assessment Reports System (CPARS), Award Fee Evaluations, and when possible, pre-award evaluations. All other things being equal, it is preferable for an other-than-small business to do work itself than to subcontract out to another other-than-small business when the SBA method is used. Under subcontracting plans, whenever work is subcontracted out to an other-than-small business, the agency’s metrics decrease.

Keep in mind that most universities and non-profits are other-than-small business entities, and subcontracts to these entities, while technically necessary, count against the agency’s subcontracting metrics. An exception to this is NASA’s authority (extended to prime contractors) to count Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MSI) as small disadvantaged businesses on the subcontracting level. NASA’s HBCU/MSI Technology Infusion Road Tour continues into 2017, and one of the aims of this initiative is to assist HBCU/MSIs in becoming subcontractors.

One other change that NDAA of 2016 brought about: in contrast to the previous year, agencies will now be scored on the number of small businesses they use, on a per–North American Industry Classification System (NAICS) code basis. We do not have any data for this yet. SBA is to provide that to us at some point, so there will be more to come in that department. Best wishes for a prosperous 2017!

Human Exploration and Operations Mission Directorate Update
Small Business Innovation Enables Big Missions

Jitendra A. Joshi, Ph.D., Lead for Technology Integration
Advanced Exploration Systems Division
Human Exploration and Operations Mission Directorate
NASA Headquarters

The Human Exploration and Operations Mission Directorate (HEOMD) is responsible for NASA’s human space flight activities. Programs within HEO include Exploration Systems Development (Space Launch System, Orion Spacecraft, and Ground Systems Development); Commercial Space Transportation; Exploration Research and Development (Advanced Exploration Systems (AES), Space Life and Physical Sciences Research and Applications, and the Human Research Program); and Space Operations (International Space Station, Launch Services Program, and Space Communications and Navigation).

Partnerships are key to implementing complex long-term space exploration missions. For example, AES is pioneering new approaches for rapid development of prototype systems, demonstrating key capabilities, and validating operational concepts to enable human missions beyond low Earth orbit, all with the goal of making the Journey to Mars more affordable.

In addition, HEOMD partners with the NASA Space Technology Mission Directorate (STMD) Small Business Innovative Research (SBIR) program to leverage the talent of America’s small businesses by having them develop new technologies that fill critical mission gaps. SBIR investments have enabled multiple missions; in fact, some of the missions were only possible because of the technical solutions developed by small businesses. Some of the successful technologies include the following:

- **San Diego Composites, Inc.,** delivered over 1,000 parts for the Orion program and is currently producing the 3D-MAT compression pads, which will be used in Exploration Mission 1 (EM-1), the first planned flight of the Space Launch System (SLS) launch vehicle in 2018.
- **Made In Space, Inc.,** has developed the Zero-G Printer, which was launched into orbit in September 2014 and is serving as a test bed for understanding the long-term effects of microgravity on 3D printing. They have followed that effort with the International Space Station (ISS) Additive Manufacturing Facility (AMF), which will be a permanent manufacturing facility on the ISS, providing hardware manufacturing services to both NASA and the U.S. National Laboratory onboard.
- **Aurora Flight Sciences Corporation** developed the ISS Universal Battery Charging Station. This technology will place a battery charger on the ISS capable of charging all types of batteries currently used onboard the ISS.
- **Honeybee Robotics** developed a 1-meter class drill system for the Resource Prospector, which is in its pre-formulation stage. The drill will extract sub-surface samples from as deep as 1 meter for measurement of lunar volatiles.
- **Orbital Technologies Corporation (ORBITEC)** developed a Vegetable Production Unit (VEGGIE), which is growing plants aboard the ISS. VEGGIE adds to the space colonization arena by creating self-sustaining and reliable human environments and habitats that will help realize the Journey to Mars.
- **Air Squared, Inc.,** is building a scroll pump/compressor for MOXIE (Mars Oxygen ISRU Experiment on Mars 2020), which is an instrument that will extract oxygen from Martian carbon dioxide and enable future human missions.

Investment in innovative approaches is critical. These investments allow us to develop revolutionary solutions and take risks. Because they are high-risk, some efforts may prove unsuccessful, but even those have great value because they teach us where the current boundaries are and produce new questions to answer.
OSBP Welcomes New Administrative Support Contractors

Truphelia M. Parker, Program Specialist
Office of Small Business Programs

The NASA Office of Small Business Programs (OSBP) is pleased to announce its new Program Analysis and Administrative Support (PAAS) Contract! Salmon Group, Inc., located in Washington, DC, is an 8(a) Service-Disabled Veteran–Owned Small Business that provides administrative and information technology solutions. Join OSBP in welcoming new and returning team members!

Christopher J. Grey

Christopher Grey has returned to the Office of Small Business Programs as a contractor with Salmon Group, Inc., and will be supporting efforts in social media, outreach publications, events, and the NASA Vendor Database, among other things. In his time away from NASA, he continued on as a Government contractor for the Missile Defense Agency, the Federal Aviation Administration, and the Army. He is originally from New Orleans and graduated from Virginia Tech with a degree in communication. In his free time, he is an avid music fan and enjoys attending concerts in the DC area and around the world.

Loetta N. Henry

Loetta Henry is the Administrative Assistant for the NASA Office of Small Business Programs (OSBP). As the Administrative Assistant, Henry provides general administrative support to the OSBP team. Her hobbies include modern dance and travelling. She is a native of Queens, NY. She received her bachelor of arts degree from the College of William and Mary in 2014. Prior to joining the OSBP staff, Henry served as a Compliance Specialist in Brooklyn, NY.

Melanie A. Osei

Melanie Osei is glad to be a part of the OSBP team on behalf of Salmon Group, Inc., as Team Lead. She has worked in the Headquarters Office since 2014, upon her return from the Department of Defense (DOD) two and a half years ago. Osei worked for the Defense Information Systems Agency (DISA), tracking spending and inventory and projecting estimates for a $50 million portfolio. The experience was one of a kind, allowing her to work with over 30 Project and Program Managers simultaneously and communicate with various System/Database Administrators and Site Managers around the globe. From Europe to Hawaii to Colorado and more, she was the point of contact for a lot of DOD personnel while supporting her portfolio. Osei looks forward to seeing and supporting everyone this year at OSBP’s various events and meetings.

About Salmon Group, Inc.

Salmon Group, Inc., is an 8(a), Minority Business Enterprise, Service-Disabled Veteran–Owned Small Business with over 20 years of service. Headquartered in Washington, DC, Salmon Group specializes in staffing information technology and administrative functions, providing experienced personnel in many areas, including but not limited to acquisition support, program management, information technology, financial management, training, and administrative support. Salmon Group integrates people, operations, technology, and project management functions to create customized solutions that meet client staffing needs. With over 100 exceptional employees throughout the country, Salmon Group prides itself on providing excellent services to all customers. Point of contact: Taelor Salmon, tjs@salmongroupinc.com, 202-450-2047

OSBP Publications

The NASA Office of Small Business Programs (OSBP) Web site features multiple publications that highlight the work small businesses do for NASA. Visit https://osbp.nasa.gov/publications.html to download PDFs of the following:

- NASA Industry Forum Success Stories
- NASA Space Launch System: A Case for Small Business
- Curiosity and NASA’s Mission to Mars: A Case for Small Business
- NASA OSBP Spotlight: HUBZone
- NASA OSBP Spotlight: Women-Owned Small Businesses
- NASA OSBP Spotlight: Veteran-Owned Small Businesses
- and more!
NASA Vendor Database Subcontracting Module

The new subcontracting module is now available as a separate option in the NASA Vendor Database (NVDB) for registrants. By joining the subcontracting module, prime contractors can find subcontracting partners. For firms looking for subcontracting opportunities, this module will provide a potential list of NASA partners. As with the regular NVDB, the subcontracting module is open to both large and small companies. Both current and new registrants must opt in to join the module.

After registering in the NVDB at https://vendors.nvdb.nasa.gov, log into your account, open “Manage My Vendor Record,” click on the new second tab, “Subcontractor Details,” and select “Yes” in the drop-down menu to join. Fill in the capabilities text box.

Office of the Chief Information Officer Update

Cybersecurity in the Cloud Gaining Trust—WESTPrime Insights

Mary Phillips, Senior Director, Communications
InfoZen Communications

The perception of cloud computing in Government has changed over the past few years. Once married to private clouds, Federal agencies like NASA are now using public or commercial cloud services to improve information technology (IT) service delivery and cut costs. When it comes to migrating the mission-critical workloads, security still remains a concern, yet trust is building. Here’s why.

In 2010, under the Cloud First policy enacted by former White House Chief Information Officer (CIO) Vivek Kundra, an estimated $20 billion of the Federal Government’s $80 billion budget was slated to be spent on cloud services, based on estimates reported to the Office of Management and Budget (OMB). The policy directed Federal agencies to move three technology services, like e-mail, to the cloud within 18 months of its inception.

Shortly thereafter, Amazon Web Services (AWS) made a move to equip the Government with its own trusted public cloud infrastructure, which included security at the building and data center level housing the Federal Information Security Management Act (FISMA). AWS GovCloud was made available to U.S. Government agencies and organizations in Government-regulated industries that met requirements for access. It served the Government’s unique needs and regulatory requirements, making it easy to use while also securing and protecting the infrastructure from unauthorized access.

Public Cloud Service Providers (CSPs) like AWS and Microsoft Azure operate on a shared security model, wherein the CSPs are responsible for physical infrastructure and customers are responsible for their application security (firewall policies, network security, etc.). These developments and proven-use cases have further enabled Government employees to shift their view of cloud security in the public cloud. All Federal agencies have been actively using and moving their workloads to the public cloud ever since.

NASA has securely deployed over 150 applications under a contract called WESTPrime. The types of applications include the Agency’s premier portal www.nasa.gov, http://images.nasa.gov, and the https://science.nasa.gov public-facing sites. In addition, NASA’s Science Mission Directorate has several applications hosted internally on both US-EAST Region and GovCloud in AWS.

In GovCloud, NASA WESTPrime has deployed several applications, including Extravehicular Activity (EVA), the NASA Engineering Network, mission-critical applications like Life Sciences, and Enterprise Search. To date, over 25 internal and Internet-facing Web applications have been deployed and maintained on WESTPrime’s Drupal-as-a-Service (DaaS) platform. Identity and access management (ICAM integration with Launchpad, as well as Active Directory) with Multi-Factor Authentication (MFA) enhances and layers security on all of these applications.

Cybersecurity in the cloud is further enhanced by the deployment of various tools like Web application firewalls (WAFs), network monitoring tools, auditing/logging tools, and behavioral analysis/analytics for insider-threat monitoring with continuous improvement of the security posture. This security extends from network to application and devices. Security controls like the use of pre-hardened instances, system vulnerability scans, and static code analysis further enhance the security posture.

The perception of the cloud continues to shift positively with success stories. With the correct partnerships and capabilities in place, Government agencies can more fully embrace efficiencies and trust security in the public cloud. Furthermore, the IT implementers’ and integrators’ knowledge of FISMA requirements and data-level requirements ensures efficient and secure migration paths to the cloud.
Contracting Officers Shadowing ARC Small Business Specialist

During the past 6 months, three of our contracting officers shadowed Ames Research Center’s (ARC) Small Business Specialists. The officers subsequently provided information regarding their careers at ARC and what they learned during the shadowing.

Mark Lefler, Contracting Officer for NASA Ames Research Center

After getting my bachelor’s degree in business/finance, I worked for a few years in private industry before beginning a career in Government procurement at the Defense Contract Administration Services Plant Representative Office-FMC (DCASPRO-FMC) in California in 1985. Three years later, I came to NASA Ames as a Contract Specialist, and I am still here today some 30 years after joining the Government. I have had many titles and jobs during my tenure at Ames, but the one that I find the most rewarding is the one I have now as group lead in the Center Operations, Technical R&D and Safety Branch (JAC). While I thoroughly enjoyed working on some large, decade-long construction projects here at Ames, I now enjoy the camaraderie of working closely with a group of contract specialists on a variety of acquisition/business-related projects at the branch as well as for the division at large. More recently, I finished up work on a University Affiliated Research Center (UARC) contract that has now transitioned into another academic-type research contract—which has turned out to be extremely rewarding because of the people I worked with. Where else in the world can people work on such cool stuff, year after year, like we get to do at NASA? Today, I like the challenge and excitement of working around some really sharp people, both in and out of procurement, and I look forward to a few more years of good work here at Ames.

Mia Blessing, Contracting Officer for NASA Ames Research Center

I have been working in procurement since 2013 and began my procurement career at the Mission Installation Contracting Command, Moffett Field, supporting the Army Reserve. Prior to that, I worked for the Army Reserve at Camp Pendleton, CA, as a program manager for the Yellow Ribbon Reintegration Program and for their Family Readiness Program, supporting Army Reserve soldiers and their families during the seven phases of deployment.

I graduated from Biola University in La Mirada, CA, with a bachelor of arts degree, having essentially created my own communications and interdisciplinary business marketing major. I have a master’s in business administration with an emphasis on public administration from Liberty University in Lynchburg, VA. Before entering the Federal Government as a civil servant, I lived in London and spent my time traveling and worked in Los Angeles in movie marketing and public relations.

Bethany McClave, Contracting Officer in Aero, Exploration Technology and Information Technology Branch (JAI):

After graduating from Marshall University, in Huntington, WV, in 2003, I began my contracting career as an intern for the Army’s Aviation Applied Technology Directorate (AATD) in Ft. Eustis, VA. Six years and a master’s degree later, I moved to the Bay Area and became a NASA Contracting Officer. Even 13 years in, there is still so much to learn. During my time shadowing Christine in the Small Business Office, I enjoyed gaining more insight into all the hard work it takes to educate and advocate for small businesses. It has been especially interesting and helpful to dig deeper into how Center small business goals are developed and explore the latest market resources.
Given the evolving nature of NASA’s mission support needs, the Mission Support Directorate (MSD) established the Business Services Assessment (BSA) to strategically evaluate our business and mission support services—i.e., look at the current health of the service and identify opportunities for optimization. MSD Deputy Associate Administrator Dan Tenney leads the BSA. The BSA continues to support the Agency’s objective of establishing a more efficient operating model for the Agency to meet current and future mission needs. As of October 2016, NASA had four BSA areas in the implementation phase (Information Technology, Procurement, Human Capital, and Facilities) and two areas in the assessment phase (Budget Management and Education/Outreach) as well as plans for additional deep dives in the future.

The BSA process starts with the establishment of a diverse, multi-Center, deep-dive core team that develops the scope and assessment activity. The core team collects data from across NASA, conducts surveys and interviews with internal stakeholders, reviews recent audits and regulations, benchmarks external organizations, and performs a detailed assessment of existing operations. The BSA Steering Committee (BSSC) uses this information to develop options and risk-informed recommendations for the Mission Support Council (MSC). The BSA employs several feedback mechanisms to collect input on the options and recommendations from NASA Centers, Mission Directorates, and other key organizations. Once decisions have been finalized by the MSC, the Functional Owner is responsible for implementing those decisions. Options, recommendations, decisions, and implementation must all appropriately take small business impacts into consideration.

Two themes from the BSA Procurement Deep Dive decisions specifically address NASA’s Small Business Program:

**Optimizing Volume:** Options to evaluate existing contracts and determine if a new contract vehicle is needed or not. This decision is focused on reducing the total volume of contract instruments and is not a push to create a single contract for the Agency in which small businesses cannot compete. Strategic sourcing is not only about establishing a single contract but also providing a standardization of the requirements and practices related to acquiring the same supplies or services. An example would be the NASA security contracts, which are enabled at the Centers but have the same requirements Agency-wide; these are firm-fixed-price contracts and are all in the Small Business Program. Another aspect of optimizing volume is ensuring that when you have an “enterprise” contract, it is fully utilized by the Agency. Strategic sourcing is also part of the Administration’s initiatives.

**Optimizing Time:** By implementing this recommendation, we will reduce procurement lead times, which will benefit industry (particularly small businesses) by making the process more efficient and less burdensome. As we recompete our follow-on contracts, we can set aside vehicles for small business and enable timelier contract actions. This increased efficiency will also allow us to avoid extending contracts with companies that no longer qualify as “small businesses,” and thus avoid the risk of NASA’s loss of small business credit.

Finally, all of the other completed deep dives (IT, Human Capital, and Facilities) have reference to contracting and strategic sourcing and specify working jointly with procurement, formalizing guidance on strategic sourcing, and having contract consolidation opportunities that consider the impact on Agency small business goals.

For more information on the BSA’s efforts, please visit our Web site at [https://nbat.hq.nasa.gov/bsa/index](https://nbat.hq.nasa.gov/bsa/index).
On May 31, 2016, the Small Business Administration (SBA) issued its final rule on similarly situated entities and the Non-Manufacturer Rule (NMR). (The coverage on similarly situated entities implements section 1651 of the National Defense Authorization Act for FY13.) The FAR Council is preparing an interim rule implementing the new rules.

The concept of similarly situated entities may change the dynamics of set-asides for small businesses. A similarly situated entity is a subcontractor that has the same small business status as the prime in a set-aside. Similarly situated entities, therefore, are defined by the type of set-aside they have. Similarly situated entities do not count against the limitation on subcontracting when the similarly situated entity is a first-tier subcontractor. Independent contractors may be considered similarly situated entities if they meet the applicable criteria. The prime contractor also has the ability to assign a different North American Industry Classification System (NAICS) code to its subcontractors, a fact that could determine size.

The rule also changes how the limitation on subcontracting is calculated. The new calculation is based on how much the Government pays the prime. With the exception of service contracts, the cost of materials is excluded from the limitation on subcontracting. The rule also introduces the concept of a “mixed contract,” recognizing that contracts often are a blend of supplies and services. The contracting office selects a single NAICS code that best describes the principal purpose of the contract. The selected NAICS code determines whether the contract is for supplies or services and whether the acquisition can be set aside. If a services NAICS code is selected, then 100 percent of the supplies can be from a large business.

Compliance with the limitation on subcontracting is determined after completion of the base period of performance on the contract and then after completing each subsequent option period. Compliance with the limitation on subcontracting is on an order basis when the order is set aside under a full and open contract or under a full and open contract with a reserve. However, compliance at the order level is discretionary for orders placed under contracts awarded via a total or partial set-aside. The rule provides that compliance with the limitation on subcontracting is a matter of responsibility and not a matter of size. The contractor will be assessed penalties, which will be the greater of $500,000 or the amount spent in excess of the permitted level of subcontracting, for violating the limitation on subcontracting. Failure to comply also may be considered a basis for debarment.

The creation of the similarly situated entities caused the SBA to create a new exclusion from its affiliation rules. The new exclusion allows for two or more small businesses to form a joint venture without being affiliates. Additionally, the rule modifies the ostensible subcontractor rule to exclude similarly situated entities.

While the rule made many changes to the NMR, the biggest change was to small business set-aside contracts valued between $3,000 and $150,000 and exempted from the coverage of the NMR. One legal article stated that this change would allow small businesses to supply products to large manufacturers for exempted contracts without violating the limitation on subcontracting. 

OSBP Web Site

The NASA OSBP Web site helps individuals and companies to navigate small business policies, procedures, and best practices at NASA.

The purpose of the Web site, http://www.osbp.nasa.gov, is to share the vision of the Small Business Program at NASA, as well as provide pertinent information on how to do business with NASA.

OSBP Staff

The OSBP team is committed to providing excellence in service and information to the small business community.

Glenn A. Delgado
Associate Administrator

Richard L. Mann
Program Manager

Robert Medina
Program Manager

Tabisa T. Kalisa
Program Manager (Detail to Headquarters)

Truphelia M. Parker
Program Specialist, Editor

Melanie A. Osei
Program Analyst (Contractor)

Christopher J. Grey
Program Analyst, Editorial Assistant (Contractor)

Loetta N. Henry
Administrative Assistant (Contractor)