Lakehurst Small Business Roundtable Industry Day

Presented by:

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NAVAIR, NAWCAD Lakehurst

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NAVAIR

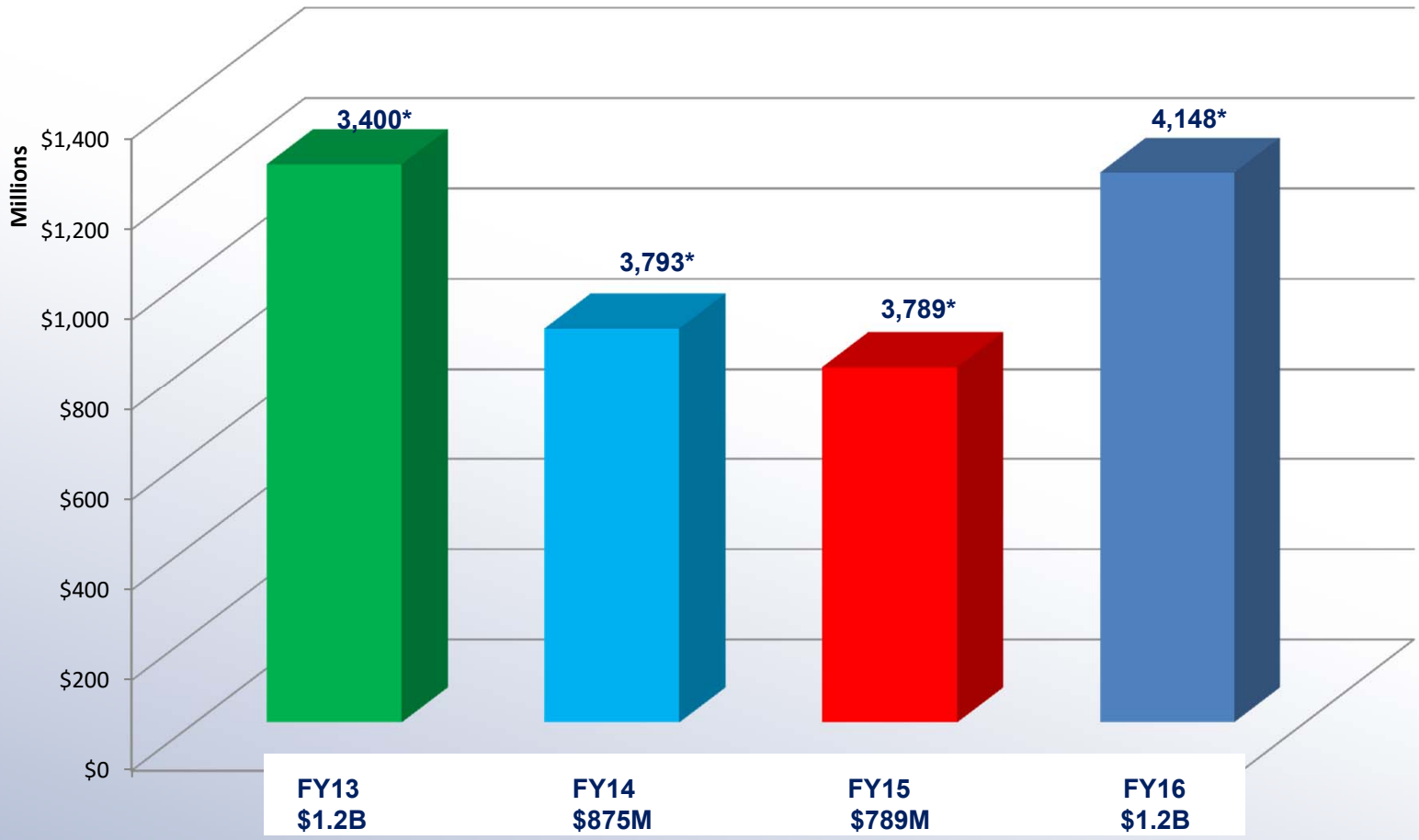
GOALS/TARGETS

NAWCAD LAKEHURST TARGETS VS. ACTUALS

Prime Contracting	NAWCAD LKE FY13	NAWCAD LKE FY14	NAWCAD LKE FY15	NAWCAD LKE FY16 ACTUALS as of 30 SEP 16
Total Dollars	$ 1,238,169,800	$ 875,524,498	$ 788,908,981	$ 1,219,134,318
Small Business	60.539%	56.587%	48.967%	46.068%
Threshold Target	49.000%	45.000%	35.000%	
Objective Target	62.000%	53.400%	43.400%	47.000%
Dollars	$ 749,577,422	$ 495,430,117	$ 386,306,884	$ 561,626,874
SMALL DISADVANTAGED BUSINESS	11.815%	8.229%	7.558%	6.968%
Threshold Target	9.500%	10.000%	6.000%	
Objective Target	15.500%	12.340%	9.360%	7.400%
Dollars	$ 146,284,557	$ 72,045,169	$ 59,625,532	$ 84,951,383
VETERAN-OWNED SB	20.456%	19.928%	10.077%	8.348%
Dollars	$ 253,279,365	$ 174,470,396	$ 79,497,894	$ 101,768,386
SERVICE-DISABLED VETERAN-OWNED SB	12.171%	13.224%	2.854%	2.361%
Threshold Target	4.960%	4.960%	3.000%	
Objective Target	8.000%	7.930%	8.500%	2.880%
Dollars	$ 150,700,931	$ 115,775,555	$ 22,512,475	$ 28,781,505
WOMAN-OWNED SB	7.048%	6.922%	7.855%	8.117%
Threshold Target	5.000%	6.340%	5.000%	
Objective Target	7.000%	7.000%	7.000%	7.500%
Dollars	$ 87,262,865	$ 60,605,984	$ 61,967,569	$ 98,957,881
HIST. UNDERUTILIZED BUSINESS ZONE SB	1.664%	3.240%	3.206%	1.068%
Threshold Target	1.000%	1.000%	1.000%	
Objective Target	1.500%	1.710%	1.710%	3.050%
Dollars	$ 20,602,905	$ 28,364,977	$ 25,293,357	$ 13,020,263

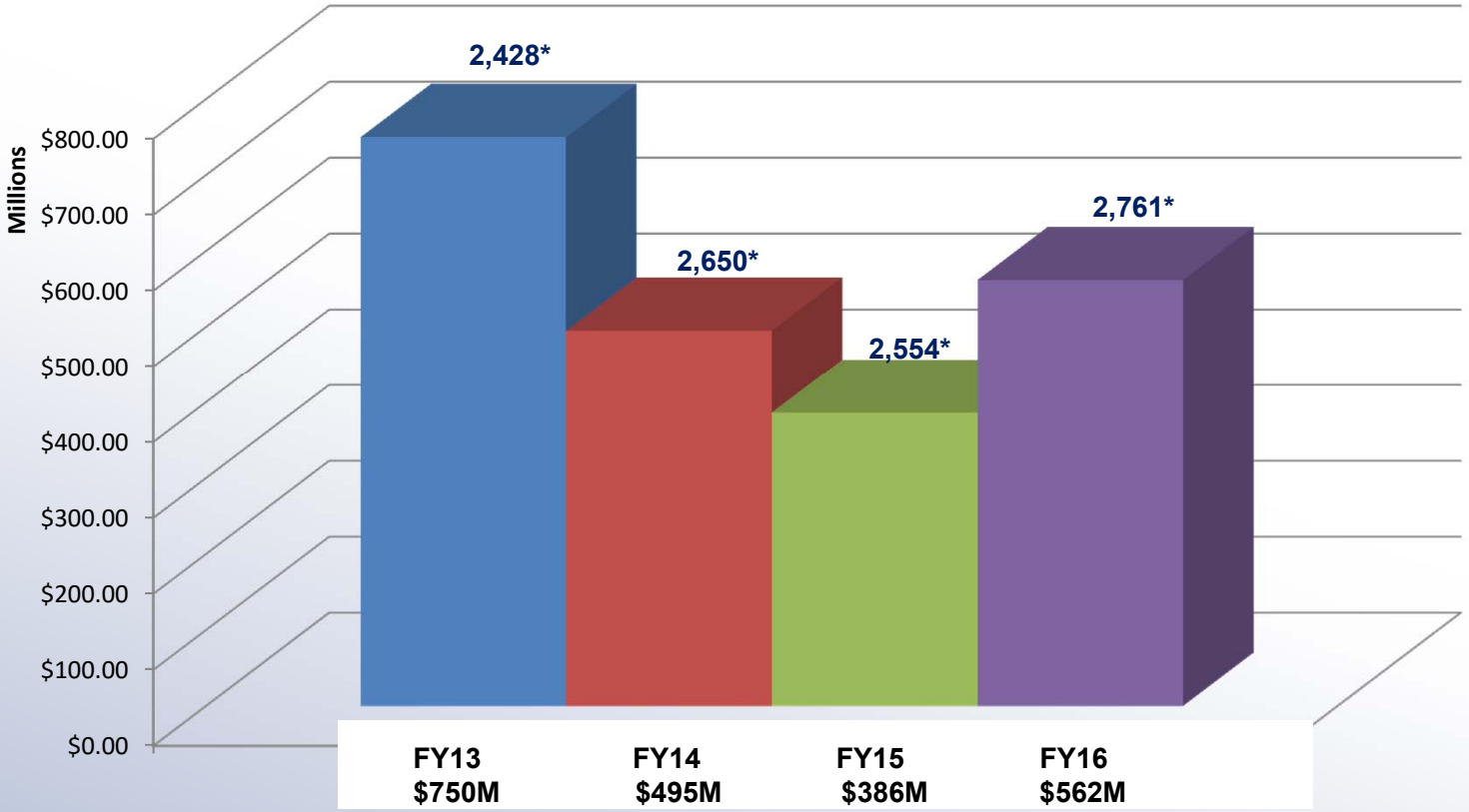
Threshold = Site-Requested Target
Objective = Required Target to meet NAVAIR's DON-Assigned Target
VOSB has no set target from DoD.
Data derived from FPDS-NG Small Business Achievements by Awarding Organization.

OBLIGATIONS AVAILABLE FOR SMALL BUSINESSES



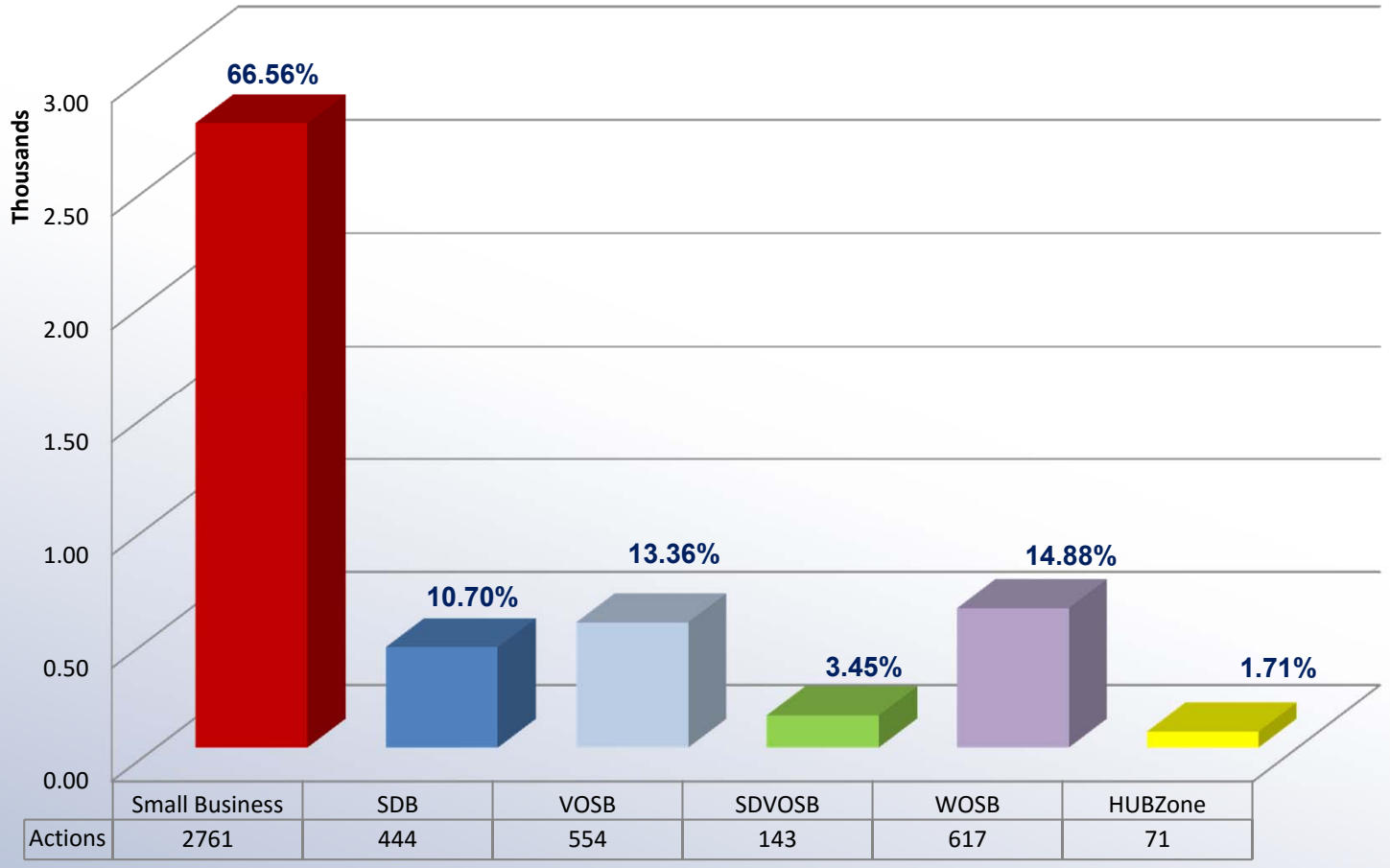
*Actions

OBLIGATIONS AWARDED TO SMALL BUSINESSES



*Actions

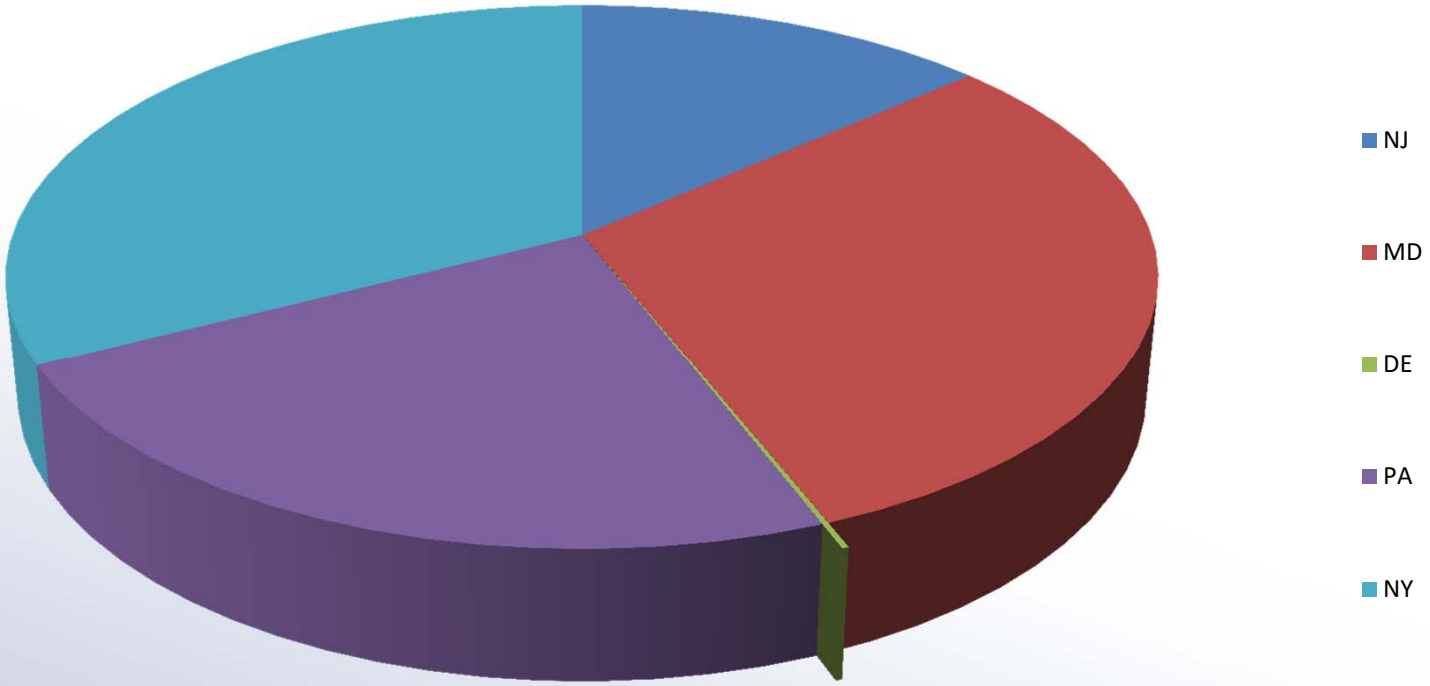
ACTIONS FOR FY16



	Small Business	SDB	VOSB	SDVOSB	WOSB	HUBZone
Actions	2761	444	554	143	617	71

Percentages are based on actions available to Small Businesses

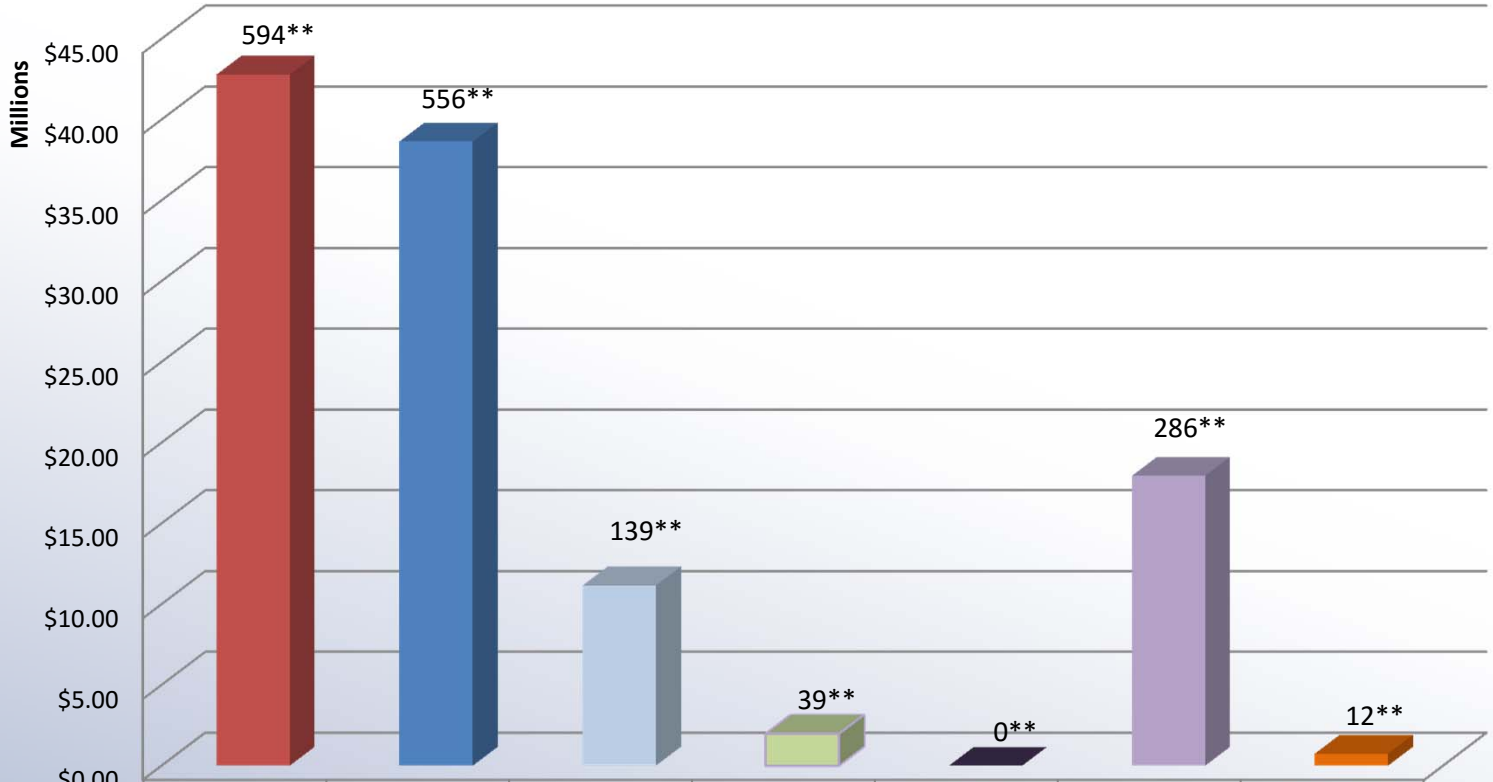
TOTAL FY16 AWARDS FOR NJ, MD, DE, PA & NY



	TOTAL OBLIGATIONS	SB OBLIGATIONS
NJ	$42,783,491.62	$38,648,739.90
MD	$96,775,221.80	$44,959,010.29
DE	$528,068.00	$528,068.00
PA	$73,905,584.40	$37,429,581.90
NY	$103,359,553.42	$4,491,257.77

FY16 NJ INFO

90.34% of total obligations awarded in NJ went to Small Businesses

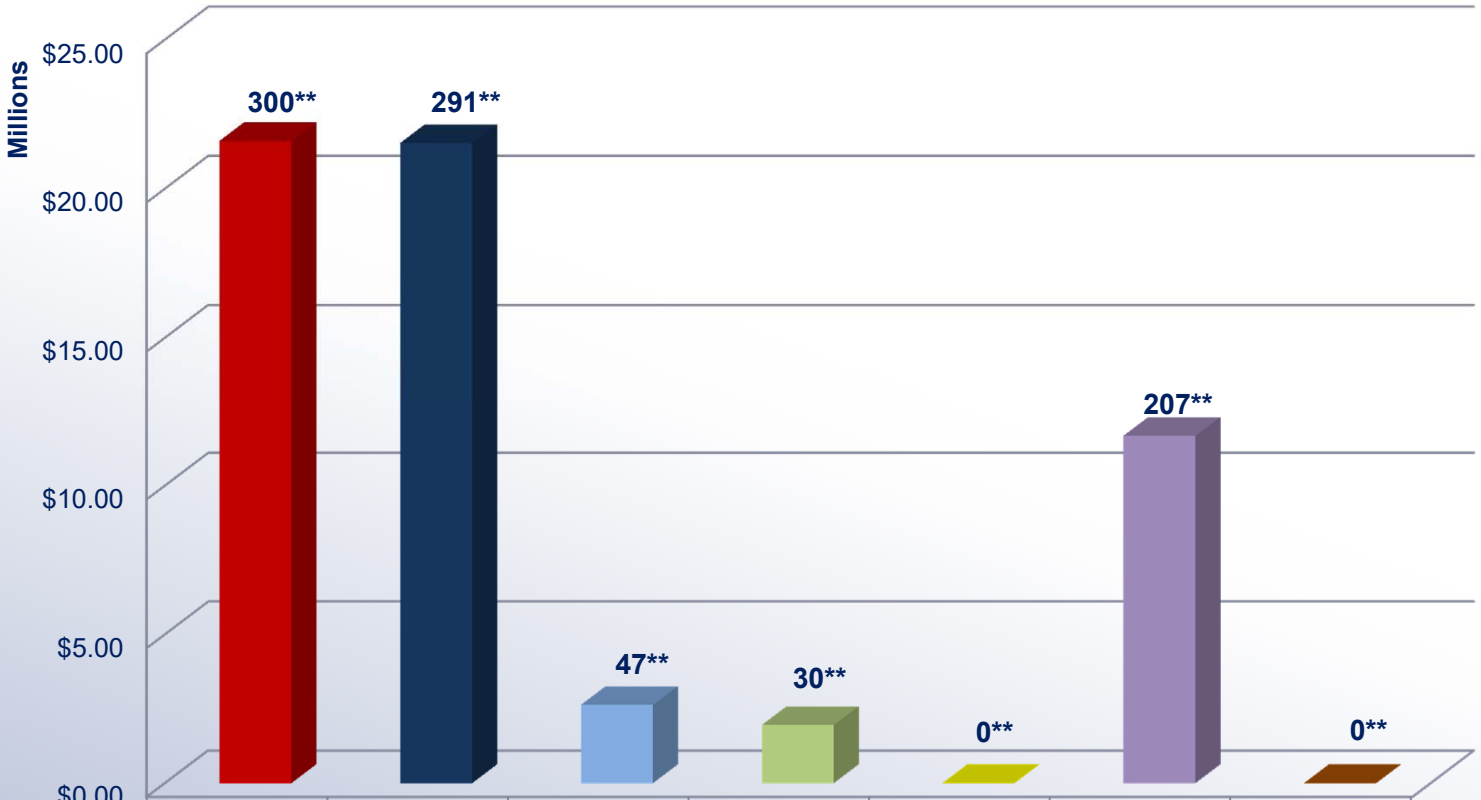


	Total Dollars*	Small Business	SDB	VOSB	SDVOSB	WOSB	HUBZone
Dollars Obligated	$42,783,491.62	$38,648,739.90	$11,160,276.78	$1,983,651.90	$0.00	$17,952,953.42	$747,918.20

*These are the total dollars obligated, not just those available for Small Businesses
** Actions

FY16 OCEAN COUNTY INFO

99.68% of total obligations awarded in Ocean County went to Small Businesses

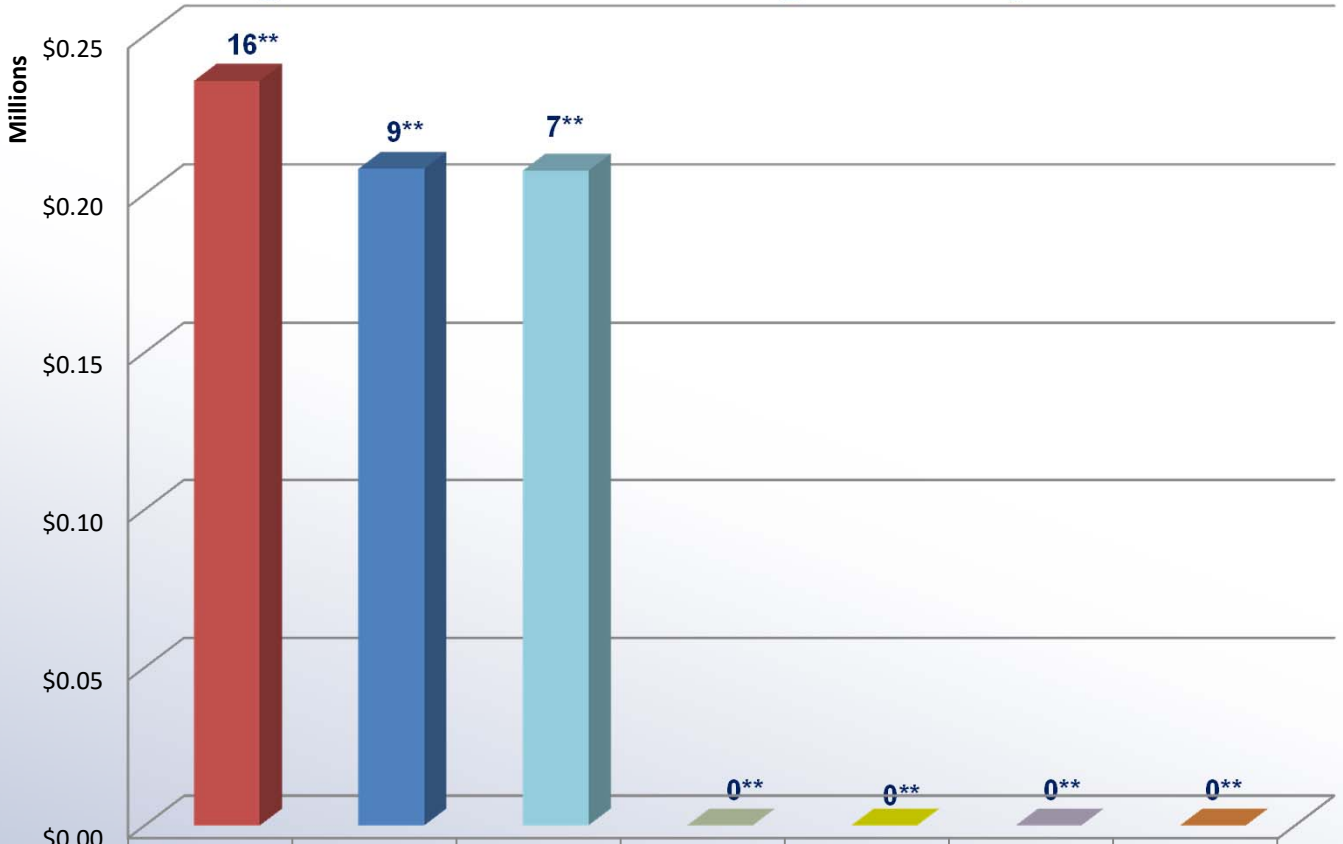


	Total Dollars*	Small Business	SDB	VOSB	SDVOSB	WOSB	HUBZone
Dollars Obligated	$21,594,224.6	$21,525,863.6	$2,627,451.57	$1,948,896.38	$0.00	$11,672,214.5	$0.00

*These are the total dollars obligated, not just those available for Small Businesses
** Actions

FY16 BURLINGTON COUNTY INFO

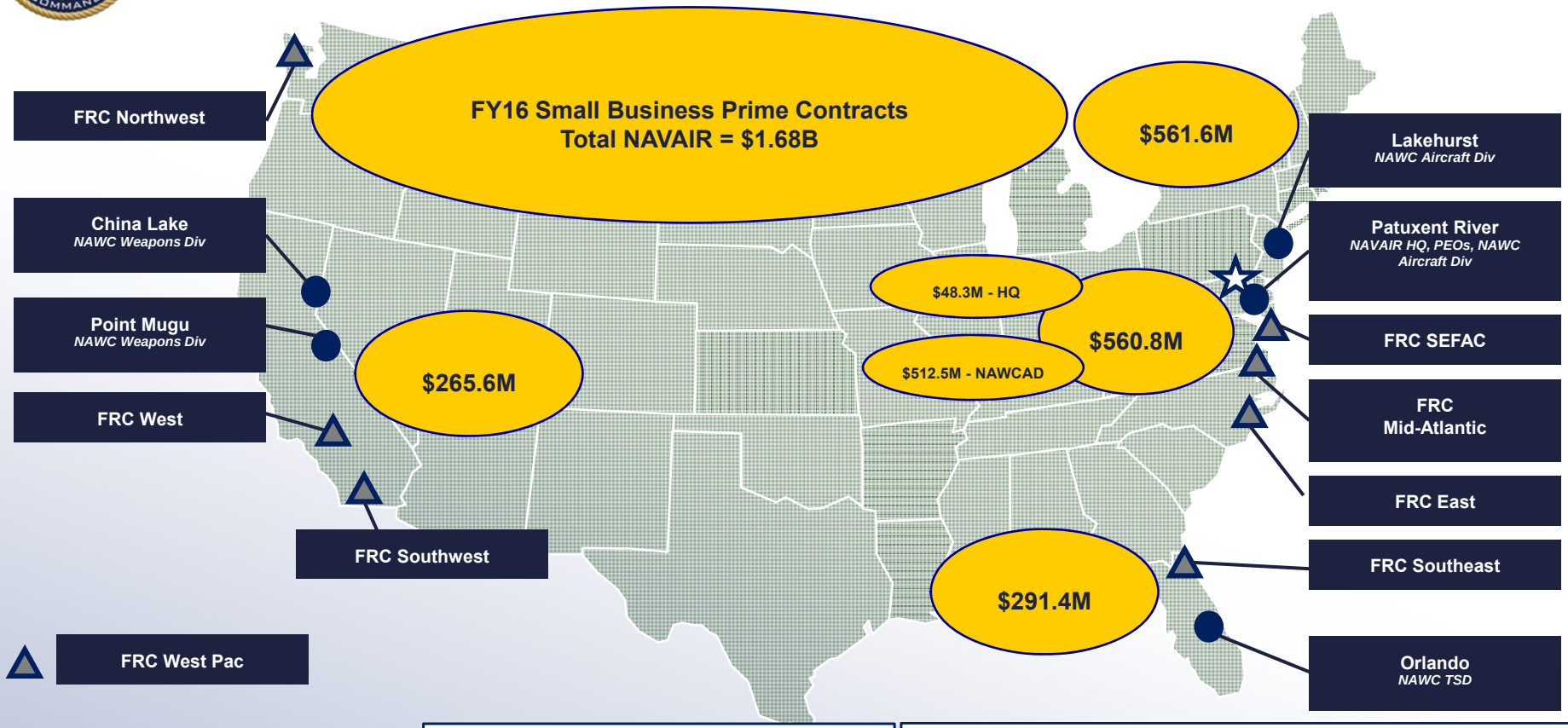
88.21% of total obligations awarded in Burlington County went to Small Businesses



	Total Dollars*	Small Business	SDB	VOSB	SDVOSB	WOSB	HUBZone
Dollars Obligated	$235,771.13	$207,981.13	$207,381.13	$0.00	$0.00	$0.00	$0.00

*These are the total dollars obligated, not just those available for Small Businesses
** Actions

FY16 Small Business Obligations



Weapons West Coast Hub

- *Missiles / Freefall weapons*
- *Weapon System Integration*
- *Electronic Warfare Systems*
- *Land Range / Sea Range*
- *Non Lethal Weapons*

Aircraft East Coast Hub

- *AIR VEHICLES*
- *PROPULSION & POWER*
- *AVIONICS & SENSORS*
- *SHIP INTERFACE & SUPPORT SYSTEMS*
- *UAVS*
- *ATLANTIC TEST RANGE AND GROUND SYSTEMS TEST FACILITIES*
- *HUMAN PERFORMANCE / SIMULATOR SYSTEMS*

NAWC SDVOSB TOTAL

	FY13	FY14	FY15	FY16 as of 30 SEP 16
NAWCWD				
Goal	2.100%	2.100%	5.000%	3.500%
Actual Percentage	**4.105%**	**5.723%**	**3.791%**	**3.957%**
Dollars Obligated to SDVOSBs	$ 22,891,212	$ 44,996,999	$ 28,371,522	$ 30,911,218
Total Dollar Amount	$ 557,596,566	$ 786,220,539	$ 748,328,036	$ 781,208,468
NAWCAD PAX RIVER				
Goal	3.500%	3.500%	4.250%	4.200%
Actual Percentage	**4.348%**	**3.757%**	**4.228%**	**4.673%**
Dollars Obligated to SDVOSBs	$ 74,338,487	$ 63,650,747	$ 65,175,050	$ 73,989,289
Total Dollar Amount	$ 1,709,822,024	$ 1,694,245,887	$ 1,541,611,775	$ 1,583,310,228
NAWC TSD ORLANDO				
Goal	2.180%	2.180%	3.500%	4.000%
Actual Percentage	**2.395%**	**3.818%**	**4.053%**	**3.978%**
Dollars Obligated to SDVOSBs	$ 16,412,643	$ 39,321,117	$ 24,992,685	$ 39,067,114
Total Dollar Amount	$ 685,240,014	$ 1,029,770,893	$ 616,634,500	$ 981,966,559
NAWCAD LAKEHURST				
Goal	4.960%	4.960%	4.960%	2.880%
Actual Percentage	**12.171%**	**13.224%**	**2.854%**	**2.361%**
Dollars Obligated to SDVOSBs	$ 150,700,931	$ 115,775,555	$ 22,512,475	$ 28,781,505
Total Dollar Amount	$ 1,238,169,800	$ 875,524,498	$ 788,908,981	$ 1,219,134,318
TOTAL				
Total Dollars Obligated to SDVOSBs	$264,343,274	$263,744,419	$141,051,731	$172,749,126
Total Dollars Obligated	$4,190,828,403	$4,385,761,817	$3,695,483,292	$4,565,619,573
Total NAWC Percentage	**6.31%**	**6.01%**	**3.82%**	**3.78%**

NAWC WOSB TOTALS

	FY13	FY14	FY15	FY16 as of 30 SEP 16
NAWCWD				
Goal	2.550%	2.550%	3.300%	2.900%
Actual Percentage	**3.374%**	**2.726%**	**3.116%**	**2.810%**
Dollars Obligated to WOSBs	$ 18,814,124	$ 21,434,378	$ 23,315,418	$ 21,949,165
Total Dollar Amount	$ 557,596,566	$ 786,220,539	$ 748,328,036	$ 781,208,468
NAWCAD PAX RIVER				
Goal	4.890%	4.890%	5.750%	6.000%
Actual Percentage	**4.384%**	**4.897%**	**6.078%**	**5.856%**
Dollars Obligated to WOSBs	$ 74,950,966	$ 82,965,260	$ 93,699,262	$ 92,717,350
Total Dollar Amount	$ 1,709,822,024	$ 1,694,245,887	$ 1,541,611,775	$ 1,583,310,228
NAWC TSD ORLANDO				
Goal	5.100%	5.100%	5.200%	4.500%
Actual Percentage	**5.563%**	**3.537%**	**4.737%**	**4.297%**
Dollars Obligated to WOSBs	$ 38,120,262	$ 36,426,889	$ 29,209,271	$ 42,195,635
Total Dollar Amount	$ 685,240,014	$ 1,029,770,893	$ 616,634,500	$ 981,966,559
NAWCAD LAKEHURST				
Goal	4.890%	4.890%	7.000%	7.500%
Actual Percentage	**7.048%**	**6.922%**	**7.855%**	**8.117%**
Dollars Obligated to WOSBs	$ 87,262,865	$ 60,605,984	$ 61,967,569	$ 98,957,881
Total Dollar Amount	$ 1,238,169,800	$ 875,524,498	$ 788,908,981	$ 1,219,134,318
TOTAL				
Total Dollars Obligated to WOSBs	$219,148,216	$201,432,511	$208,191,520	$255,820,031
Total Dollars Obligated	$4,190,828,403	$4,385,761,817	$3,695,483,292	$4,565,619,573
Total NAWC Percentage	**5.23%**	**4.59%**	**5.63%**	**5.60%**

After Contract Award

- Key message: You must now **PERFORM!**
- LET NAVAIR KNOW if you're experiencing difficulties… ASAP
  - Technical/Performance
  - Schedule
  - Financial
- …And these communications should be DOCUMENTED
- Know your CONTRACT…scope, terms, conditions, schedules, deliverables – it's what we're holding you accountable for
- Be aware the government rates your performance yearly in the Contractor Performance Assessment Reporting System (CPARS) – Used in future source selections (Contracts over $1M for services and over $5M for products)

Lakehurst Small Business Roundtable Good News Stories

OM Group Inc is a NJ based woman owned small business. Their capabilities include IT services, software development, environmental services as well as staffing and project management. Om Group is ISO 9001:2008 certified, and appraised at Level 3 of the CMMI Institute's Capability Maturity Model Integration (CMMI) for both the DEV and SVC constellations. They are currently serving the Navy, Army, Army Material Command, Army Reserve Command, Army National Guard and the Air National Guard. OM Group is certified in SBA's Section 8(a) Business Development Program, and an Economically Disadvantaged Woman Owned Small Business.

Sowmya Hariharan, President of OM Group, met Beth Harshfield, President of Exhibit Arts, another Woman Owned Small Business, at the first Lakehurst Small Business Industry Day Event last October. They exchanged capability information, and identified areas where they were strategically aligned. Even when there was no immediate opportunity for them to work together, they stayed in touch and kept each other updated. Early this year, Exhibit Arts reached out to OM Group regarding an opportunity with NAWCAD at Lakehurst that they were an incumbent on. It was set-aside for 8(a) companies, and Exhibit Arts had graduated from the 8(a) program. OM Group reviewed the opportunity, and decided to team up with Exhibit Arts and go after it. They are very happy to report that their team was awarded the contract, and have started work at NAWCAD.

With OM Group based in NJ and Exhibit Arts in Kansas, there was little chance that their paths would've crossed if not for the Lakehurst Small Business Industry Day Event. They are very grateful to the Lakehurst Small Business Roundtable for creating a forum for small businesses to network and identify teaming opportunities, as well as learn about small business opportunities with the Department of Navy.

Lakehurst Small Business Roundtable Good News Stories

Garden State Medical Supply, LLC opened as a WOSB in Jan 2014. They started working on government contracts and were doing small business with local counties and received a few state contracts.

In 2015 they added a DBA Gov Supplies and expanded into fasteners and hardware. They were happy with the lower level contracts, but wanted to work at the federal level as well. Being that they are located in Ocean County, NJ they figured their best bet was to try and learn about doing business with the Joint Base, specifically Lakehurst.

They attended the SB Roundtable in October 2015 and learned about what the base buys and how they buy it. They also heard from each of the Program Offices there and saw a niche in the Manufacturing Division.

They went into FBO.gov and made an alert for all bids coming out of Lakehurst. Soon enough they found a solicitation that they were a fit for. They provided a quote and we awarded the contract! Being that we are right near the base we had the opportunity to personally deliver the product and we were able to make sure the base received the product a few days earlier that needed.

Since that award they are actively working to become one of the suppliers for the Industrial Supplies BPA. They learned from the roundtable presentation all about the BPAs and how Lakehurst utilizes them.

They stated “The SB Roundtable really was a huge part in our being able to take that next step in working with Lakehurst. Gov Supplies is grateful to Harry Kahn and to Lakehurst for having this event, and for the opportunity to hear from the base directly. The event really gave us a better understanding on how we can work with Lakehurst to support their mission. “

Small Business Successes

H-1 O-LEVEL ADAPTER SETS

Contract Information: Indefinite Delivery Indefinite Quantity (IDIQ) contract, N68335-16-D-0009

Contractor: Greene Machine & Manfacturing Inc., Small Disadvantaged Women-Owned Small Business

Awarded: February 2016 in the amount of $3,668,776.97

Manufacture and delivery of up to thirty (30) each Tailboom Handling Adapter Sets and 110 each Combining Gearbox Handling Adapters in support of the AH-1Z and UH-1Z Helicopter. These items of Peculiar Support Equipment will be used to meet rigorous site activation schedules for Organizational Level Fleet activities. The contract has a period of performance through February 2020. The procurement was done as a sole source under the 8(a) program.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0013-0002, SBIR Phase III Topics N08-023 and N151-013

Contractor: Navmar Applied Sciences Corp.

Awarded: May 2016 in the amount of $6,819,280

The Navy is becoming increasingly interested in deploying acoustic sensing systems below critical depth in the ocean, close to, or on the ocean bottom in convergent zone type environments. At these depths, the ambient noise structure and sound propagation physics are unique and have the potential to be exploited by future undersea surveillance systems.

The primary objective of this SBIR Phase III delivery order is for the continued advanced research and development and engineering services for the Deep Long Life Passive Sonobuoy Sensor System and Precision High Altitude Sonobuoy Sensor System. The plan is to transfer these advanced technologies into airborne Anti-Submarine Warfare systems for fleet use.

Small Business Successes

SBIR Phase III

Contract Information: N68335-16-C-0169, SBIR Phase III Topic N08-014

Contractor: Creare LLC

Awarded: May 2016 in the amount of $1,137,690

The Navy sought the development of an innovative electronic system technology that would interface with a Repeatable Release Holdback Bar (RRHB); count the number of shots on a RRHB; indicate the position of the reset indicators; record the release load pressure; provide the start point (real time) for a catapult launch; and hold a unique identifier (serial number) for each bar that could be read with a Personal Digital Assistant.

The primary objective of this SBIR Phase III contract is for the continued research and development and engineering services for a universal RRHB. The universal RRHB will be compatible on multiple Naval aircraft platforms that currently use repeatable bars such as T-45; F/A-18C/D; F/A-18E/F; EA-18G; and F-35. Specifically, the contractor will continue development of the RRHB design; build RRHB prototypes; and test the RRHB prototypes in a lab environment on test apparatus.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0018-0001, SBIR Phase III Topic N102-152

Contractor: Adaptive Methods

Awarded: October 2015 in the amount of $1,125,000

The technology being developed under SBIR topic number N02-152 is urgently needed to provide the Navy's airborne Anti-Submarine Warfare (ASW) platforms (P-8A, MQ-4C, MH-60R, MQ-8C) with an advanced Environmental Mission Planner - The Total Solution in support of the Multi-static Active Coherent (MAC) system. The Environmental Mission Planner - The Total Solution will provide the Airborne ASW fleet with a cost effective and rapidly deployable asset whose data output will be applicable across all fleet Airborne ASW platforms. The Environmental Mission Planner - The Total Solution technology will provide a new critically needed capability to meet ASW intelligence and mission planning requirements. This Environmental Mission Planner - The Total Solution technology will continue its development as a functional segment of the Navy's MAC program under this delivery order.

This procurement effort is for the contractor to perform advanced technology maturation of the Environmental Mission Planner - The Total Solution, and deliver those advanced technology builds to the Naval Air Warfare Center Aircraft Division-Acoustic Systems Division. As defined in this effort, the contractor will perform research, development and testing in support of the Airborne ASW Systems Program Office, PMA-264, specifically the MAC; Advanced Processing Builds; Fleet Performance Analysis; Airborne ASW Intelligence; Navy Underwater Active Multiple Ping; High Altitude ASW; Advanced Sensors Application programs; and Future Navy Capabilities, which are critical to the overall success of the fleet's airborne ASW operations and training missions. Successful completion of this work will result in increased sensor system performance and ASW operator proficiency.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-12-G-0059-0005, SBIR Phase III Topic N06-036

Contractor: Mercury Defense Systems

Awarded: April 2016 in the amount of $15,430,634

Most modern threat weapons systems employ the use of Radar Systems and Electronic Attack (EA) Systems. During engagements, the Radar system is employed to find and lock onto the intended victim in an attempt to successfully launch the first missile shot. On the other hand, the EA System is employed by the adversary in an attempt to defeat the Radar system, thus denying information on one or all of the three dimensions sought by the Radar system: Range, Velocity and Angle. An adversary with EA capabilities such as that provided by the Advanced Digital Radio Frequency Memories (DRFM) would create a very serious situational awareness problem for the Radar system and the aircrew.

The primary objective of this SBIR Phase III delivery order is to provide advanced DRFM hardware units in direct support of US Navy and US Air Force weapons evaluation programs. The contractor shall provide twenty-eight Advanced DRFM units, Acceptance Test Data showing completion of successful testing, and a User's Manual describing interface requirements and programming instructions. The efforts of this delivery order are to make the Advanced DRFM capabilities available to the aircrew in a controlled test and evaluation event prior to their departure outside of the continental United States. Without the Advanced DRFM, the first time the aircrew flies against these advanced EA capabilities could possibly be in combat.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0016-0001, SBIR Phase III Topic N06-002

Contractor: Areté Associates

Awarded: October 2015 in the amount of $4,587,183

The scattering of radio waves from the air-sea interface can be determined from a description of the slope and elevation of wind driven waves. Probability distribution functions for the slopes of the wind drive waves were obtained nearly fifty years ago, and more recently other investigations have added to the results. The Navy wants to collect sufficient statistics to produce a high fidelity approximation of the ocean surface over a variety of conditions to include capturing rare events of interest such as waves exhibiting large slopes. A variety of collection methods are possible, however, the collections must be extensive enough to capture a wide range of ocean conditions. The locations(s) that the collections are made is an important factor. A means to store the data to include wave slope; elevation; wind speed and direction; and air temperature and water temperature, and then process it in an automated fashion, is required.

The primary objective of this effort is for continued research and development that will ensure the integrity of existing results during the Phase I and II efforts; and validate the previous understanding of sensor functionality and anomalies. The ~ 200 channels of sensors will be evaluated during comprehensive system testing while environmental factors considered will identify any unexpected data. Successful completion of tasks will provide a potential transition to a broad technical community including the Advanced Sensors Application Program. Furthermore, successful completion of this work will advance the state of the art in ocean sensor systems and physics-based algorithms.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0033-0001, SBIR Phase III Topics N06-123 and N111-030

Contractor: Lambda Science Inc.

Awarded: October 2015 in the amount of $6,249,870

Under the SBIR Phase II efforts of the topics, Resource Management (RM) logic was first developed to maximize radar's operational utility in tactically complex maritime and littoral environments. This work is continuing to be advanced and expanded under several complimentary SBIR topics with applicability to Fire Scout, Triton, Poseidon and Seahawk platforms. High fidelity sensor modeling tools have been developed, continue to be refined and can be extended for other sensors and platforms of interest to NAVAIR. Results are used to predict and evaluate baseline sensor performance for Triton, Fire Scout and other platforms. These models can be further enhanced by the assessment of collected laboratory and flight test data. Expected operational effectiveness in highly complex maritime and littoral environments can be predicted and modifications to existing modes and the addition of new advanced modes that more fully support advanced RM concepts can be assessed.

The primary objective of this effort is to perform high-fidelity analysis performance predictions for sensors being developed for both manned and unmanned aircraft with special emphasis on the Triton and Fire Scout Unmanned Aircraft Systems. The contractor is expected to directly engage in NAVAIR radar design and performance studies and provide technical support for all phases of NAVAIR programs (in particular Triton and Fire Scout) including sensor: development, validation and verification (development test and operational test) and pre-planned product improvements. While the primary focus shall be radar sensors, the contractor may also be required to assess other sensors (ESM, EO, IR, sense and avoid technologies etc.) and the assessments may also involve other military (USAF, US Army, etc.) radars/sensors of interest.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0030-0001, SBIR Phase III Topic N112-127

Contractor: Scientific Systems Company Inc

Awarded: November 2015 in the amount of $977,567.80

Image Based Navigation for VTUAV Shipboard Landing (INAV-SL) provides a backup autonomous shipboard landing capability for Fire Scout that requires no ship modifications and is compatible with the existing Fire Scout flight control system. The INAV-SL system utilizes Electro-Optical/Short Wave Infrared imaging sensors to analyze the location and orientation of the landing deck relative to the aircraft and provides precise relative position estimates to the Fire Scout air vehicle to facilitate safe approach and landing. INAV-SL measures the motion of the deck with respect to a stabilized deck position, providing measurements as defined by the current landing system, to provide deck motion estimation for the Fire Scout flight control system. (Deck motion compensation is accomplished inside the Fire Scout flight control system using INAV-SL deck motion estimates as an input.) The current INAV-SL system has been designed and developed under the NAVAIR SBIR Phase II effort, and has been tested with flight image data, simulation-based synthesized image data, and in-flight on manned and unmanned aircraft during shore and sea based testing.

This effort will extend the INAV-SL capability and continue its development for integration and testing of INAV-SL on the Fire Scout system. The proposed effort focuses on in-flight system evaluation, building on the progress envisioned in the Phase II Enhancement effort. The INAV-SL system, which has been implemented to date as an engineering development unit, will be evaluated, updated, and implemented as candidate hardware and flight tested. Enhancements to the core algorithm for acquisition of the ship, estimation of relative position and orientation, fusion with altimeter data, and deck-motion estimation will be evaluated in shore and sea based flight tests. Collectively, these tasks will advance the maturity of the overall system solution, in preparation for eventual integration into the Fire Scout Vertical Takeoff Unmanned Air Vehicle and continued flight testing.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-13-G-0001-0003, SBIR Phase III Topic N112-127

Contractor: Progeny Systems Corporation

Awarded: January 2016 in the amount of $9,599,780

SBIR Topic “N121-045 Maritime Airborne Service Oriented Architecture (SOA) Integration” assessed and determined the feasibility of using a common open SOA to develop an integration system for mission-computing environments and subsystems. Once feasibility was determined, tasks defined the appropriate standards, integration criteria, and strategy for the exposure of data, subsystems, and sensors. Further, activities described the possible migration of the existing P-8A mission system architecture to a Service-Oriented Infrastructure. The contractor addressed the development of a prototype ground/ship based SOA Engineering Development Model (EDM). As the EDM matures, additional integration with the current maritime air platform's mission-computing infrastructure subsystems and sensors will continue, allowing demonstration of net-centric capabilities and providing risk reduction and confidence in transition of the SOA to the P-8A aircraft.

The primary objective of this effort is to continue the design and development of the P-8A Increment 3 Application Based Architecture (ABA). This task continues to support the integration and testing of the ABA with selected Increment 3 capabilities culminating with demonstration of the integrated ABA and Increment 3 capabilities.

Small Business Successes

SBIR Phase III

Contract Information: Delivery Order against a Basic Ordering Agreement (BOA) N68335-15-G-0032-0001, SBIR Phase III Topics N04-007, N093-168, and N101-005

Contractor: Signal Systems Corp.

Awarded: March 2016 in the amount of $1,400,000

SBIR Topic N04-007 focused on multi-static distributed Anti-Submarine Warfare (ASW) sonar that supports localization-to-attack and maritime shield missions of ASW. The Phase I effort addressed high risk elements of self-jamming, blind speed, and tracking issues to demonstrate direct blasé mitigation techniques using air-coupled underwater data. Phase II addressed implementing a prototype into an operation environment.

SBIR Topic N093-168 focused on developing and defining an algorithm that yields accurate location and accurate confidence limits on location for targets using only acoustic data from drifting active and passive sonobuoys in the ocean. The Phase I effort accomplished basic algorithm development using real at-sea data and bathymetry data taking an acoustic approach of buoy and target localization to provide absolute target geo-location with visual, Radio Frequency, and Global Positioning System inputs. The Phase II effort provided for a system prototype for use in a relevant environment.

SBIR Topic N101-005, the contractor researched multi-static active sonar system to provide active sonar detection with ensonification energy that is less detectable to frequency swept sonar intercept receiver, but whose target resonified energy can be easily “seen” by the proper ciphered sonar receivers. During the Phase I effort, modelling and /or simulation was completed to prove feasibility. At the same time, there was a plan development of innovative signal and information process algorithms. The Phase II effort addressed developing and refining the signal and information system, and coordinating field tests to gather and analyze data to improve and verify signal processing.

The primary objective of this delivery order is for continued research and development for Continuous Active Sonar Signal Processing, Target Localization Using Multi-Static Sonar with Drifting Sonobuoys, and Spread Spectrum Techniques for Sonar Ping Technology. This is required in order to transfer these technologies to the fleet for implementation. Products will include systems engineering, modeling and analyses, measurement of target and environment data, architecture, fabrication, installation, test, maintenance and aircrew training. Additionally, verification in various operational environments through collection, modeling, processing, and measurement of target and environment data, is required for improving aircrew ASW training.

Small Business Successes

Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0080, Rapid Innovation Fund (RIF), Requirement #: FY15-DoN-RIF-ANP-01, RIF Title: Reduce Naval Total Ownership Cost, Project Title: MH-60R Embedded ASW Simulation, Related SBIR Topic # N96-232

Contractor: CornerTurn, LLC.

Awarded: April 2016 in the amount of $1,280,000

The Department of Navy seeks technologies and products to reduce Total Ownership Cost (TOC) through reductions in procurement and sustainment costs. Technologies are sought that improve reliability and operational readiness; that reduce or mitigate system or component obsolescence; that reduce maintenance, manpower and training costs; or that extend service life. In addition, technologies are required that provide scalable energy solutions for diverse environments and reduce energy consumption through greater efficiency and power management.

The primary objective of this effort is to enhance the on-board ASW simulation capabilities to improve training for the MH-60R crews when they are on extended deployment and do not have access to the MH-60R Tactical Operational Flight Trainers (TOFTs) used to support the schoolhouse curriculum and training. This will be accomplished by enhancing the training modes presently available in the MH-60R system. The present capabilities include a Full Training Mode and a Target Training mode. Both modes are limited to simulation of the Dipping Sonar only (there is no Buoy simulation capability in the existing system), and they are also limited to simulation of a single target moving in a straight line path relative to the helicopter location. This capability does not support meaningful training over multiple dip locations since the target “follows” the helicopter to each new dip location since its position is defined relative to the helicopter position and not relative to latitude and longitude. In the existing Full Training Mode all the Dipper acoustic return data is simulated, while in the existing Target Training Mode the ALFS Dipper is actually deployed in the water, an active ping is transmitted and the returns from the environment are processed and combined with the simulated return from a "target" superimposed on the actual acoustic return data.

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Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0082, Rapid Innovation Fund (RIF), Requirement #: FY15-DoN-RIF-NAVAIR-06, RIF Title: NAVAIR PEO (U&W): Manned and Unmanned Multi-Vehicle/Weapon Moving Target Engagement, Project Title: NAVAIR PEO (U&W) Manned and Unmanned Multi-Vehicle/Weapon Moving Target Engagement, Related SBIR Topic #: N96-278

Contractor: Progeny Systems

Awarded: April 2016 in the amount of $2,969,401

The capability to target time critical and time sensitive moving military and ever more used civilian vehicles in a multi-vehicle, multi-weapon engagement scenario is needed. This will include the ability to differentiate between different types of vehicles, real-time dynamic planning and re-planning, optimizing use of selected resources and weapons to minimize kill chain timelines, enhancing targeting accuracy, and the optimizing use of types of weapons based on capability, target and situation to minimize or more so eliminate collateral damage.

The primary objective of this effort is to build a revolutionary capability Multi-Asset Mission Planning and Execution Monitoring (MAPEM) System for use by Airwing Planners, MOC planners, CWC Planners and watch standers to participate in time-sensitive strike planning and execution monitoring. This unique planning service and visualization tool will allow combat aircrew to visualize time-critical attack plans and track plan status vs. execution.

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Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0085, Rapid Innovation Fund (RIF), Requirement #: FY15-DoN-RIF-NAVAIR-02, RIF Title: NAVAIR AIR-1.0: Aircrew Physiologic Status Monitoring, Project Title: Holistic Modular Aircrew Physiologic Status (HMAPS) Monitoring System

Contractor: Athena GTX, Inc.

Awarded: April 2016 in the amount of $1,291,231

Aircrew physiologic status monitors are needed to detect, predict, and warn of decreased cognitive function before a physiologic episode occurs. Environmental stressors and physiologic factors impact the cardiovascular and cerebrovascular systems and cause impaired psychomotor function. Tolerance to the stressors varies not only from person to person, but changes for individuals based on health and fitness levels. These episodes have been documented in fixed wing tactical aircraft and highlight the need for a physiologic status monitor that includes: a platform independent person-mounted monitoring / warning system that accounts for individual physiologic tolerance; correlates physiologic decrements to cognitive deficit; provides timely detection and prediction of deficits to present a reliable alert before crisis exists; integrates with existing equipment / clothing. While commercial personal health monitoring systems have been developed for clinical and sports applications, none are directly applicable to the military aviation environment or have an underlying predictive algorithm that adapts to individual differences and accounts for routine exposures to environmental stresses that result in reduced oxygen supplies to brain tissues.

The primary objective of this effort is to predict, detect, and warn operators of impending hypoxia events and cognitive performance decrements; and provide optimal assessment and protection of military personnel and equipment through intelligent arm-based miniature monitoring and anticipative/adaptive modeling.

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Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0083, Rapid Innovation Fund (RIF), Requirement #: FY15-DoN-RIF-NAVAIR-05, RIF Title: Portable Augmented Reality Tools; Project Title: Portable Computer Aided Augmented Reality Virtualization Tools to Assist Aircraft Maintainers Augmented Digital Imaging and Recognition Technology (ADIRT)

Contractor: Research and Engineering Development, LLC.

Awarded: April 2016 in the amount of $2,899,789

Technologies are needed to deliver the capability to reduce aircraft maintenance time and number of technicians performing challenging tasks, such as alignment of aircraft components (e.g. drive shaft, flight control actuator, pin alignment), as well as wear detection, secondary observation, part orientation, etc. in blind or hard to access areas. The approach should be capable of presenting unique and clear visualization cues (with feedback) in a graphical display of information that can be projected on aircraft panels (or aircraft structure) inside the aircraft. It is envisioned that common tasks could be programmed for many types of aircraft and unique platform-specific maintenance functions could be added if the user should desire.

The primary objective of this effort to utilize Augmented Digital Imaging & Recognition Technology (ADIRT), develop and deliver capability to reduce aircraft maintenance time & increase readiness associated with challenging tasks including blind or hard to access spaces/areas. Focus platforms include: MQ-8B/C, H-60, and LCS. Focus maintenance areas include: SEAT, TRDS, UCARS/RFD, and TCDL.

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Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0084, Rapid Innovation Fund (RIF), Requirement #: FY15-DoN-RIF-NAVSEA-01, RIF Title: NAVSEA: Improving Warfighting Affordability, Capability, and Commonality, Project Title: EDGE C4ISR Modernization

Contractor: Sierra Management and Technologies, Inc.

Awarded: April 2016 in the amount of $2,750,000

Improving operational capability and effectiveness in a constrained budget and in the face of evolving threats environment require solutions to be affordable, adaptable to evolving realities (currently Pivot to the Asia-Pacific), and applicable across multiple platforms and systems where possible (through the use of open architectures, modularity and/or commonality).

The primary objective of this effort is to advance EDGE components and concepts to a state where they can be effectively deployed in one or more existing C4ISR systems in a laboratory and/or an operational environment. To accomplish this the contractor will systematically refine, test and integrate the four EDGE communications middleware software components. When completed , these components can be attached to existing software components allowing them to interact in a modular fashion.

Small Business Successes

Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0081, Rapid Innovation Fund (RIF), Requirement #: RIF Title: Other Acquisition Program Needs: NAVAIR PEO (T) PMA-231 E-2D AHE, Project Title: Metamaterial Enhancement of E-2D Advanced Hawkeye Sensor System, Related SBIR Topic #: N121-044,

Contractor: SensorMetrix

Awarded: April 2016 in the amount of $2,199,993

The E-2D is the Navy's latest all-weather, carrier-based Airborne Early Warning (AEW) aircraft, providing AEW, Naval Integrated Fire Control (NIFC) support and airborne Battle Management (BM) functions for the Carrier Strike Group and Joint Force Commander. Structural struts within the E-2D rotodome limit the electronically steered L-band Identification Friend or Foe (IFF) system to azimuthal scan range of +/- 30 degrees and cause unacceptable backlobe/sidelobe performance as determined by the Federal Aviation Administration (FAA). These limitations result in: 1) lack of critical IFF interrogations on boundaries of the most tactically significant radar sector modes and, 2) requires FAA approval on a case by case basis when operating in the majority of US airspace.

The primary objective of this effort is to develop and demonstrate methods to confirm, and provide diagnostic guidance as needed for fine tuning, metamaterial performance at an appropriate subsystem level (using single rib exemplar) through pattern measurements.

Small Business Successes

Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0108, Rapid Innovation Fund (RIF), Requirement #: AFLCMC15-8.a-P-0006, RIF Title: Trusted Avionics Access Points, Project Title: Embedded Avionics Protection System (EmAPS) LRU for Vulnerability Identification, Mitigation, Response, and Recovery

Contractor: Nokomis, Inc.

Awarded: May 2016 in the amount of $2,999,357

The Air Force is seeking technologies to design and develop a methodology and tool to verify trustworthiness of critical avionics embedded software and hardware and identify methods to mitigate vulnerabilities to ensure mission success. The framework, methodology, and tool suite should be enhanced to support vulnerability identification and mitigation of both commercial and military applications. An analysis of systems and services to determine the assets with the highest operational impact will be conducted. The prototype design should be an independent Line Replaceable Unit attached to the 1553 bus to monitor, alert, and/or take an active response to adversarial activity within the aircraft systems. This capability should include an Intrusion Detection System, Intrusion Prevention System, and Communication Control channel through an airborne network or out of band communication.

The primary objective of this effort is focusing on the development, performance demonstration, and transition of the EmAPS LRU to provide immediate benefit across Air Force weapons platforms that utilize a 1553 bus architecture. Execution of technical objectives will facilitate the transition of a proven technology that meets Air Force requirements. Specific objectives to be accomplished include: EmAPS design, development, manufacture, and performance testing Characterization of LRUs and threat vectors of interest to supported Air Force programs Pilot testing of the EmAPS at an Air Force facility to demonstrate performance in an operational setting All objectives will be pursued in close coordination with Air Force personnel to maximize the relevancy of actions performed under this program.

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Rapid Innovation Fund (RIF)

Contract Information: N68335-16-C-0031, Rapid Innovation Fund (RIF), Requirement #: AFLCMC15-8.n-P-0006, RIF Title: Expand the Data Transfer Rates within Legacy Aircraft Without adding Wires, Project Title: High Speed Data for Legacy Aircraft

Contractor: Ki Ho Military Consulting, Inc.

Awarded: May 2016 in the amount of $2,909,845

The Air Force is seeking ways to provide the capability to expand missions by enabling the intercommunications within legacy aircraft to grow to at least 100Mbps without having to add any wires or cables. Current legacy aircraft are limited in the ability to transfer data between positions on the vehicle. Current missions have not caused the internal transfer rates to be exceeded; however, future missions (such as Advanced Tactical Data Links) are highly likely to exceed the transfer rate limits.

The primary objective of this effort is to demonstrate the integration of an Extended 1553 data bus on an operational aircraft in support of its long term system architecture roadmap. The project will demonstrate the use of Extended 1553 to support a FACE™ architecture coexisting with legacy systems and integrating with a high resolution sensor. It will also integrate with the analog to digital signal data converter we demonstrated in early 2015 as part of the Rapid Modular Software Integration RIF effort.

Small Business Successes

F-35 Joint Program Office Security Services

Contract Information: Cost Plus Fixed Fee, Full and Open Competition via SEAPORT-e

Contractor: System High

Awarded: February 2016 in the amount of $70M including options

The program security support disciplines consist of Program Management, Security Operations, Program Protection, Foreign Disclosure, International Security, and Special Security Studies. The resultant order has a period of performance of one (1) base year and four (4), twelve (12) month options. The acquisition strategy for this procurement was the issuance of a Cost Plus Fixed Fee (CPFF) Level of Effort (LOE) Term Task Order using FAR Part 16.5 Fair Opportunity procedures via a Seaport-e task order in Zone 2. Market research was conducted by F-35 JPO Business Operations to ensure the acquisition approach described in this document was the approach most suitable for acquiring the required services. A determination could not be made that 2 or more small businesses could support the requirement. The solicitation received 4 offers and the award was made to a small business.

Small Business Successes

F-35 Joint Program Office Program Management Knowledge Based Services

Contract Information: Cost Plus Fixed Fee, Full and Open Competition via SEAPORT-e

Contractor: American Electronics Inc. (dba as Amelex)

Awarded: September 2015 in the amount of $84M

This was a follow-on requirement that was previously satisfied by two (2) separate contracts that were competitively awarded via full and open competitions. This acquisition strategy for the procurement is the issuance of a Cost Plus Fixed Fee (CPFF) Level of Effort (LOE) Term Task Order using FAR Part 16.5 Fair Opportunity procedures via a Seaport-e task order in Zone 2. Market research was conducted by F-35 JPO Business Operations to ensure the acquisition approach described in this document was the approach most suitable for acquiring the required services. A Request for Information (RFI) notification was posted to the Seaport-e website. Twenty (20) small businesses and five (5) large businesses responded. After reviewing the capability statements from the interested parties it was determined that there were two or more small businesses that were capable of meeting the requirement. The Request For Proposal (RFP) for this requirement was issued via the Seaport-e as a **100% SMALL BUSINESS SET ASIDE**. The resultant order has a period of performance of one (1) base year and four (4), twelve (12) month options.