



# Welcome / Administrative Remarks



*Presented by:*

**Mr. Ken Carkhuff**

Office of Small Business Programs



# Vice Commander, NAVAIR



*Presented by:*

**RADM S.R. Eastburg**

Vice Commander

Naval Air Systems Command



# Commander, NAWCAD



*Presented by:*

**RDML R.L. Mahr**

Commander

Naval Air Warfare Center Aircraft  
Division



# Naval Air Warfare Center Aircraft Division



*Presented by:*

**Mr. Gary Kessler**

Executive Director

Naval Air Warfare Center Aircraft  
Division

NAVAIR Public Release 2012-400

Distribution Statement A – “Approved for public release; distribution is unlimited.”



## Research, Development, Test, Evaluation, Engineering and Fleet Support Activity for:

- Air Vehicle
- Propulsion and Power
- Avionics
- Crew Systems
- Aircraft Launch and Recovery Equipment
- Aviation Support Equipment
- Training Systems
- Warfare Analysis
- Ship/Shore Air Operations



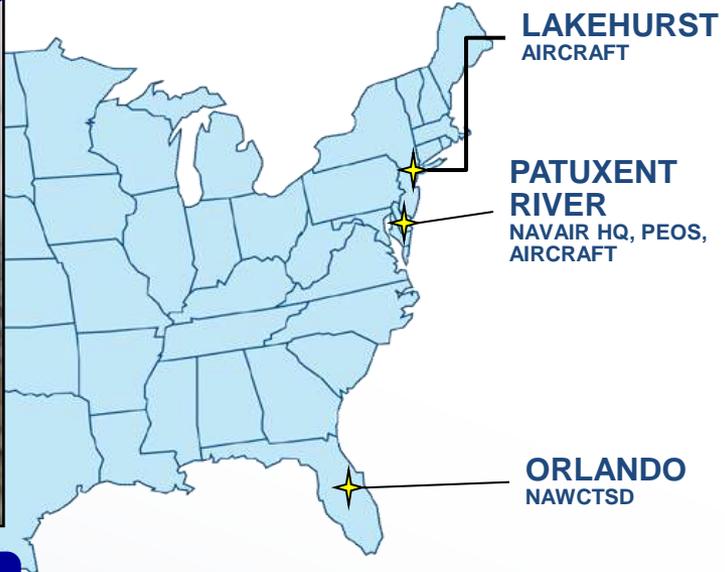
# Naval Air Warfare Center Aircraft Division



## AIRCRAFT



- AIR VEHICLES
- PROPULSION & POWER
- AVIONICS & SENSORS
- CREW SYSTEMS
- SUPPORT SYSTEMS
- LAUNCH & RECOVERY



## TRAINING



- HUMAN PERFORMANCE / SIMULATOR SYSTEMS

- Horizontally integrated with other Warfare Centers and National Labs
- Warfare Centers shaped by BRAC (Indianapolis, Trenton, Warminster closed & consolidated at Pax)
- The only combined Air/Ship/Shore C4I and Interoperability DT&E site

## NAWCAD The Busiest Test Center in the World

### Value Proposition

- **Mission**...the Navy's principal RDAT&E, engineering and fleet support activity for naval aircraft, engines, avionics, support systems and ship/shore/air integration.
- **Workforce**: 13,000 engineers, flight test engineers, scientists, RDATE professionals. Navy's intellectual capital works here.
- **National Ranges and Labs**: Integrated, unique, MRTFB invested, joint facilities, and not duplicated by industry.
- **Customer**: PEO/PMA, but strong history in Joint, Inter-Service, Inter-Agency, FMS and Industry collaborative.
- **Business Model**: Navy Working Capital Fund (NWCFF) supply and demand model incentivizes cost consciousness.
- **Flag Officer** with Command responsibilities (NAWCAD) and Technical Authority (Air 4.0).



# Command Structure



**ECHELON II**

**NAVAL AIR SYSTEMS COMMAND**  
**HEADQUARTERS**  
**PATUXENT RIVER**  
  
COMMANDER  
AIR-00

**ECHELON III**

**NAVAL AIR WARFARE CENTER**  
**AIRCRAFT DIVISION**  
**PATUXENT RIVER**  
  
COMMANDER  
VICE COMMANDER      EXECUTIVE DIRECTOR

NAWCAD  
Lakehurst NJ

NAWCAD-1.0  
PROGRAM  
MANAGEMENT

NAWCAD-2.5  
CONTRACTS

NAWCAD-4.0  
RESEARCH &  
ENGINEERING

NAWCAD-5.0  
TEST &  
EVALUATION

NAWCAD-6.0  
LOGISTICS &  
INDUSTRIAL  
OPERATIONS

NAWCAD-7.0  
CORPORATE  
OPERATIONS

NAWCAD-10.0  
COMPTROLLER

NAWCAD-11.0  
COUNSEL

**ECHELON IV**

**TRAINING SYSTEMS**  
  
ORLANDO  
COMMANDER  
EXECUTIVE OFFICER

**NAVAL TEST WING  
ATLANTIC**  
  
PATUXENT RIVER  
COMMANDER

**ECHELON V**

VX-20

HX-21

VX-23

USNTPS

ISSC SITE  
OPERATIONS  
LEAD  
JACKSONVILLE

ISSC SITE  
OPERATIONS  
LEAD  
CHERRY POINT

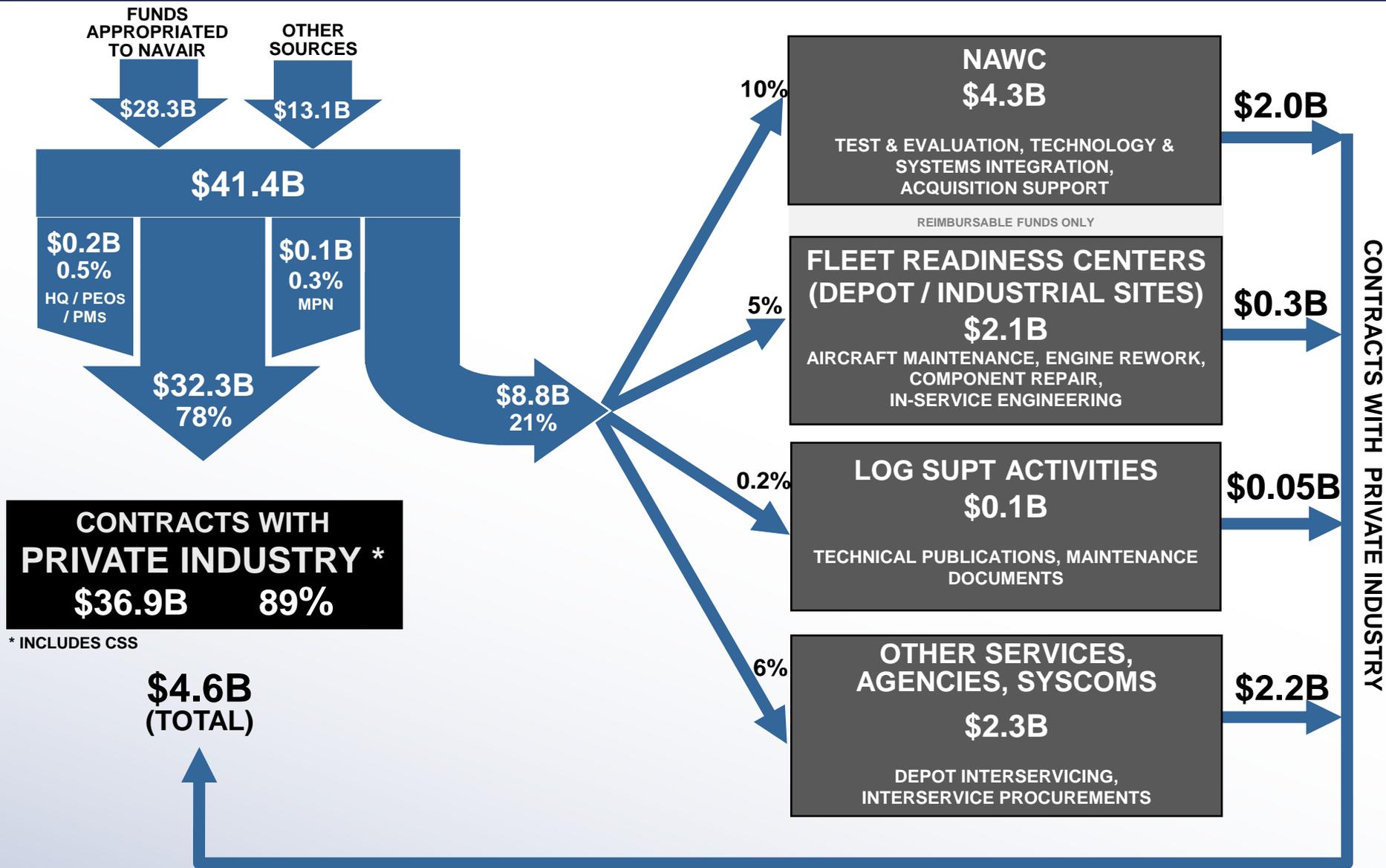
ISSC SITE  
OPERATIONS  
LEAD  
NORTH ISLAND

Fleet Readiness Centers





# FY11 Macro Funds Flow







# Primary Focus Areas



## Primary focus areas for NAWCAD in the coming years:

- Irregular Warfare
- Rapid Prototyping and Rapid Acquisition
- Unmanned Systems and Autonomy
- Lead Systems Integration
- Interoperability
- Nano and Meta Technologies
- Naval Aviation Center for Rotorcraft Advancement (NACRA)
- Energy Alternatives and Efficiencies



# Major Programs of Record



OEM



JSF/F-35B



F/A-18, EA-18



EMALS



P-8A



E-2D

JCIDS

## Unmanned Systems

OEM/  
GOV'T



BAMS



Scan Eagle



Fire Scout



X-47B



TCS

JCIDS/  
JUONS

## Irregular Warfare

GOV'T  
LSI/  
Small  
Business



MZ3A



PGSS



Tiger Shark



C-130  
PSYOPS



Super Tucano

JUONS

## Rapid Prototyping

GOV'T  
LSI



Thor



Chaff  
Buckets



Harvest  
Hawk



GMV  
Integration



OWP  
Alleron Tool

JUONS/  
MIPR

Full Spectrum Supplier of RDAT&E, Goods and Services



## Accelerating Solutions to the Battlefield...

- By leveraging exceptional engineering expertise and our unique laboratories, ranges and other facilities
- Through shared “lessons learned” that enable us to meet Warfighter needs with fast and effective solutions
- Through new and innovative discoveries and techniques

***NAWCAD: The Busiest Flight Test Center in the World!***





## NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION

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- [About Us](#)
- [Blog](#)
- [Partnering With Us](#)
- [Facilities/Capabilities](#)
- [Employment](#)
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### Leveraging Resources for Technology Development



Air Vehicle



ALRE Lakehurst



Atlantic Test Range



Avionics



Human Systems



IBST



NACRA



Partnering With



Power and



Rapid Prototyping

Home - About Us - Blog - Partnering With Us - Facilities/Capabilities - Employment - Contact Us - Links  
 This is an official U.S. Navy Web site. This site is a U.S. Department of Defense System. Please read our [Privacy Policy](#) and our [Web Site Accessibility Notice](#).




Follow NAWCAD On:















# Questions



# NAWCAD Technology Transfer Program



*Presented by:*

**Mr. Michael Schroeder**

Director, NAWCAD Business and  
Partnership Office

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# NAWCAD Technology Transfer



## *Inside the Lab*

R&D Staff

Lab Management

Public Affairs

Legal Staff

Procurement Staff

Security

## NBPO

NAWCAD  
Business &  
Partnership  
Office

### Functions:

- Supports S&Es
- Coordinates transfer activity
- Assists non-Navy

## *Outside the Lab*

Private Sector

Academia

State and Local  
Organizations

National Networks

Professional and  
Trade Groups

Other T2 Offices



# Commercial Service Agreement



What is a CSA?

Non-FAR based agreement to Buy our Goods and Services

- Private Company
- State / Local Government
- Academic Institutions



# Commercial Service Agreement



## Where is the statutory authority to execute CSAs?

### **10 U.S.C. § 2539b (a) (3)**

To make available, on a reimbursable basis, to any person or entity the services of any government laboratory, center, range or other testing facility for TESTING PURPOSES.

### **10 U.S.C. § 2681**

Provides authority for Major Range and Test Facility Base (MRTFB) installations to enter into contracts to provide commercial TEST AND EVALUATION SERVICES.

### **10 U.S.C. § 2563**

Provides authority to SELL DEFENSE ARTICLES AND/OR SERVICES THAT ARE MANUFACTURED OR PERFORMED by Working Capital Funded facilities.



# Commercial Service Agreement



## Objective/Scope:

Assisted Stark Aerospace in conducting a flight demonstration for the Air National Guard and Customs and Border Patrol officials.

---

## NAWCAD Resources Leveraged:

- Atlantic Test Range
- Webster Field Outlying Field
- UAS flight test team



**Heron Flying over Webster Field**



# Commercial Service Agreement



## Objective/Scope:

Provided Sikorsky with Test and Evaluation (T&E) support of their S-70B platform. Primary tests involved T&E of the avionics systems and stores separation testing.

## NAWCAD Resources Leveraged:

- Atlantic Test Range
- PRISM (Patuxent River Infrared Signature Measurement)
- Electromagnetic Environmental Effects test facilities



**S-70B flying over Patuxent River**



# Cooperative Research & Development Agreement



## CRADA Statute: Title 15 U.S.C. 3710a

- Allows R&D collaboration between NAWCAD and one or more non-federal partners.
- Provides the means to offer intellectual property (IP) rights and other federal resources that would otherwise not be available to a non-federal partner.

## NAWCAD can provide:

- Personnel, facilities, equipment, IP, or other resources but **NO** funds to non-federal party.

## Non-Federal party can provide:

- Personnel, facilities, equipment, IP, or other resources as well as funds to NAWCAD.



# Cooperative Research & Development Agreement



## Objective/Scope:

Collaboration and integration of the Northrop Grumman provided digital avionics system on the NAWCAD/NACRA UH-1N aircraft for use as a test bed for other aircraft equipment and capabilities, particularly the Collision Avoidance System and prevention of Control Flight into Terrain (CFIT).

## Resources:

- Northrop Grumman provided Digital Avionics Systems
- NACRA's UH-1N aircraft



**NACRA's UH-1N**



# Cooperative Research & Development Agreement



## Objective/Scope:

Transfer and transition a NAWCAD developed cleaning solvent that meets stringent environmental specifications in DoD and civilian applications.

## Resources:

- NAWCAD Materials Lab



**Bearing before  
NAVSOLVE™ cleaning**



**Bearing after  
NAVSOLVE™ cleaning**

A non-petroleum based solvent that provides effective cleaning/degreasing yet contains minimal volatile organic compounds (VOCs) and no hazardous air pollutants (HAPs). The product has been registered and approved for use in the strictest EPA Air Quality Management Districts.



# Other Examples of CSAs & CRADAs



- Electromagnetic Environmental Effects (E<sup>3</sup>) Testing
- Commercial Tanker In-Flight refueling certification
- Rain Erosion Testing of Materials and Coatings
- Aircraft Engine and Transmission Testing
- Aircraft Performance Characteristics Testing
- Radar Cross-Section Testing
- Human Systems Testing
- U.S. Naval Test Pilot School Short Courses
- IFF System Design & Manufacturing
- UAV Demonstrations & Flight Tests
- Antenna Measurement
- Aircraft Recovery Systems Testing
- Rotor Spin Testing
- Airborne Sensor System Testing



## **Title 35 U.S.C. 209**

- Agreement between NAWCAD and an Industry partner which allows the Industry partner to MAKE, USE and SELL federally owned inventions.

**NAWCAD retains rights to use the technology for government purposes.**

**Industry partner pays royalties to NAWCAD.**

- Royalties are retained by the lab, except for a small percentage that goes to the inventor(s).



# Patent License Agreements



## Technology:

- NAVCLEAN® an environmentally friendly composition, process and kit for removal of mold and mildew from various materials.
- NAVGUARD® an environmentally friendly compound that prevents corrosion and mildew on non-metal and metal surfaces simultaneously.
- TCP an environmentally friendly corrosion resistance pre/post-treatment that aids bonding of paints to aluminum alloys, anodized aluminum, sacrificial coatings and steel.

## Benefits:

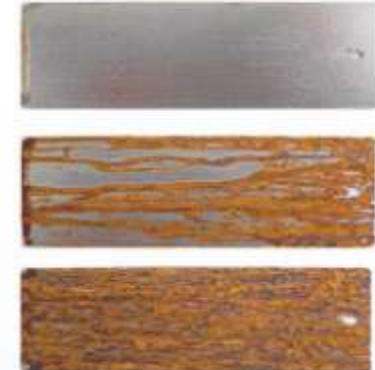
- Cost effective formulation from commercially available chemicals.
- No removal process necessary on previously treated surfaces.
- Alternative that replaces toxic hexavalent chromium (HC).



**Trivalent Chromium  
Pre/Post Treatment (TCP)**



**NAVCLEAN®**



**NAVGUARD®**



# Patent License Agreements



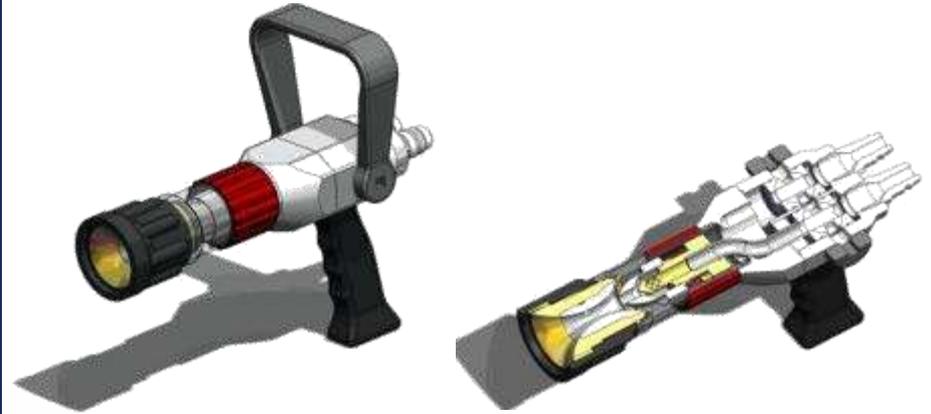
## Technology:

An adjustable, portable, hand held device that is especially useful to mix and atomize two or more fluids for fire protection and/or other applications.

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## Benefits:

- Provides a means to control the output of atomization and fluid flow on a hand held unit;
- Provides a means to mix fluids or substances (gases, liquids or substances or combination thereof) at one source and disperse the resultant mixture through an adjustable converging-diverging non-clogging nozzle.



**Prototype of Adjustable Liquid Atomization Nozzle**



# NAWCAD Technology Transfer



**Propulsion & Power**



**Surface-Air Integration Lab**



**ACETEF**



**Atlantic Test Range  
(Dynamic RCS Testing)**



**North Engineering Center**



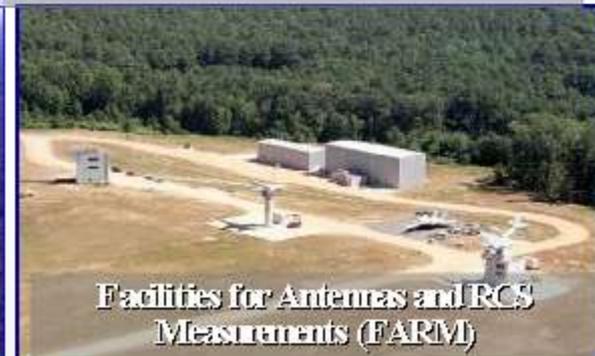
**Electromagnetic Pulse Simulator**



**South Engineering Building**



**Jet Car Test Site**



**Facilities for Antennas and RCS  
Measurements (FARM)**



# Questions

**NAWCAD Business & Partnership Office**

**301-342-1133**

**[www.navair.navy.mil/nawcad](http://www.navair.navy.mil/nawcad)**



# How To Do Business With The Naval Air Systems Command



*Presented by:*

**Ms. Emily Harman**

Associate Director

NAVAIR Office of Small Business  
Programs

NAVAIR Public Release 2012-299

Distribution Statement A – “Approved for public release; distribution is unlimited.”



## Mission:

Enabling the war fighter with creative solutions brought to them through small business.

## Vision:

NAVAIR's Office of Small Business Programs is a valuable resource that enables the best solutions for the war fighter. We are advocates for NAVAIR's strategic priorities: current readiness, future capability and people. Achieving these priorities requires the entrepreneurial skills of small and large businesses. We strive to ensure that the creative talents of small businesses are nurtured and sustained in defense of freedom.

[www.navair.navy.mil/osbp](http://www.navair.navy.mil/osbp)

Ms. Emily Harman, Associate Director, OSBP



# NAVAIR Office of Small Business Programs

**NAVAIR Headquarters**  
Associate Director, Emily Harman  
HQ Small Business Deputy, Jill Moore  
Industry Liaison, Marshall Woodfolk  
Office Assistant, Kristi Gardiner  
Program Analyst, Wanda M. Norris

**NAWCAD Lakehurst**  
Small Business Deputy, Dawn Chartier

**NAWCWD China Lake / Pt Mugu /  
NATEC SD / FRC NI**  
Small Business Deputy, Pamela Lochhead  
Small Business Specialist, Derrick Hu  
Senior Office Manager, Marty Zielke

**NAWCAD Pax**  
Small Business Deputy, Ken Carkhuff  
Small Business Specialist, Paula Coxon

**NAWCTSD Orlando**  
Small Business Deputy, Argentina Thompson



# Small Business 101



NAVAIR's policy is to provide "maximum practicable opportunities in its acquisitions to small business...concerns. Such concerns shall also have the maximum practicable opportunity to participate as subcontractors..."

**FAR 19.201(a)**

- Procurements < \$150K are automatically set-aside for small business
- All actions > \$150K are examined and rationale for not setting aside procurement for SB must be justified
- Tools include set-asides & sole source to a small business



# Secretary of Defense Memo - 24 August 2011



SECRETARY OF DEFENSE  
1000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1000



AUG 24 2011

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Increasing Small Business Contracting Opportunities in FY 2011

Dynamic small businesses play a central role in strengthening the Department of Defense industrial base and improving our acquisition outcomes. Small businesses not only lead the Nation in innovation, they are also proven drivers of competition and incubators for business growth. Increasing small business contracting opportunities is a priority of mine, and also of President Obama, who has said, "If we want to keep America moving forward, we need to keep investing in our small businesses."

With only six weeks left in this fiscal year, we are falling short of meeting our Department-wide small business contracting goal of 22.3 percent. I therefore urge you and everyone in your organization who is involved in the acquisition process to review all planned acquisitions for the remainder of the year to identify opportunities for increased contracting with small businesses. The Under Secretary of Defense for Acquisition, Technology and Logistics will issue more detailed guidance on specific tools you can use to increase small business contracting performance.

Thank you for your attention to this important matter. I look forward to working with you to meet the Department's small business goals.

cc:  
USD(AT&L)

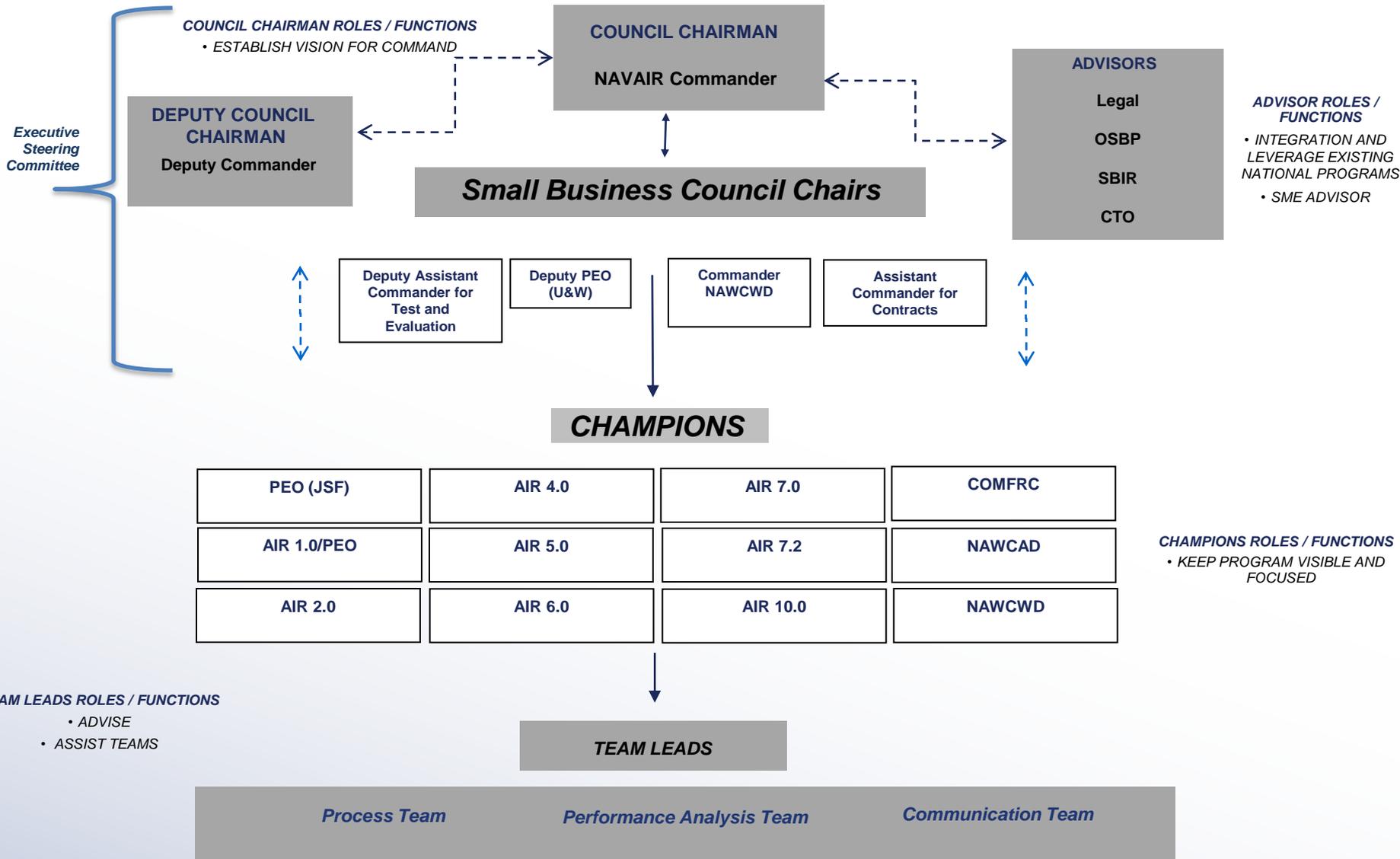
- Small businesses strengthen DoD's industrial base and improve acquisition outcomes.
- Small businesses lead the Nation in innovation and are proven drivers of competition and incubators for business growth.
- Increasing small business opportunities is a priority of the Secretary of Defense and President Obama.
- DoD is falling short of meeting our small business goal of 22.3%.
- Review all planned acquisitions for remainder of the fiscal year to identify opportunities for increased contracting with small businesses.

***"If we want to keep America moving forward, we need to keep investing in our small businesses."***

*President Barack Obama*



# Executive Small Business Council





# Executive Small Business Council



- **Vision:** Enabling NAVAIR to provide the Warfighter with creative, affordable solutions brought to them through small business.
- **Mission:** The Executive Small Business Council will ensure small businesses have the maximum practicable opportunity to participate in NAVAIR procurements, both as prime and subcontractors.



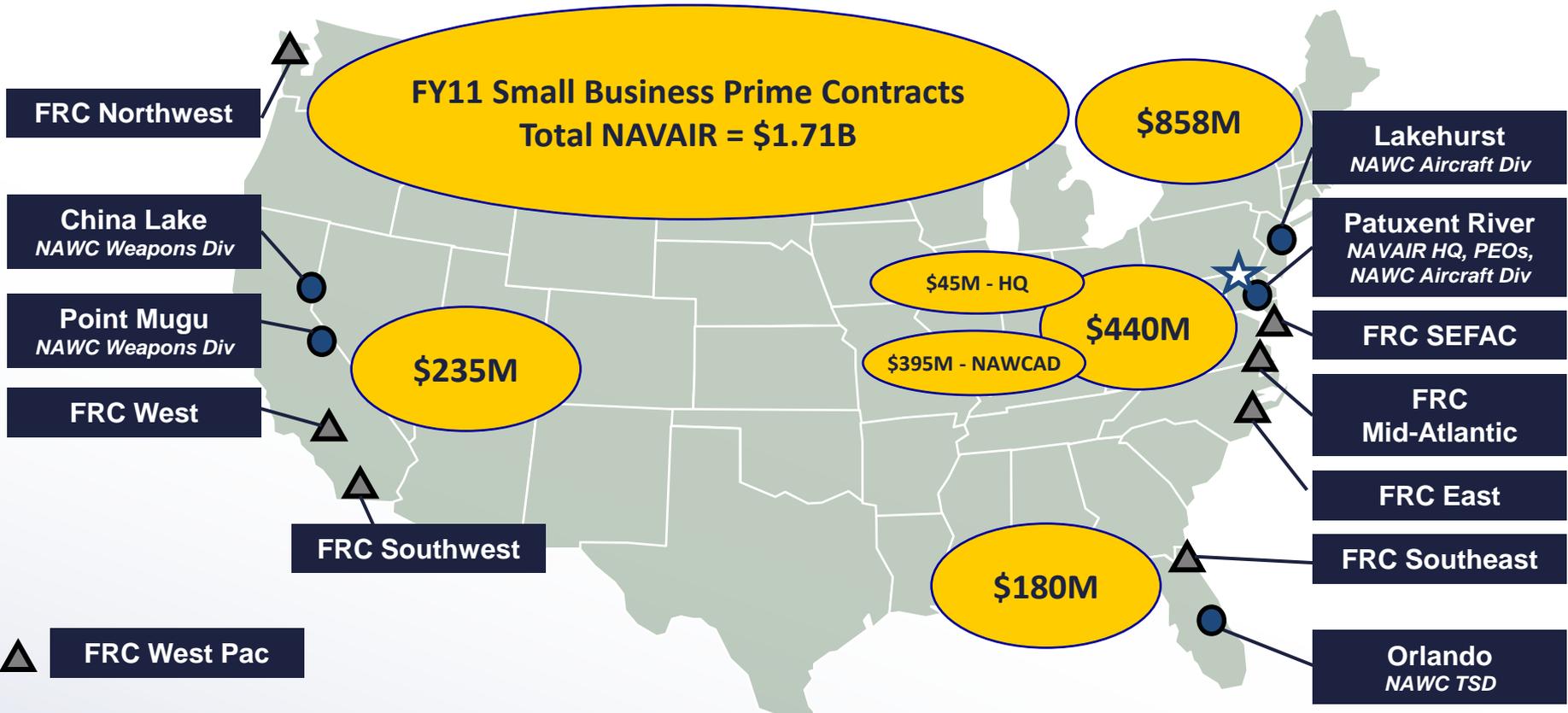
# Executive Small Business Council Objectives



- Improve workforce awareness and initiate manager, supervisor and team lead accountability for NAVAIR small business contract participation.
- Improve opportunities for small business participation as prime and subcontractors in NAVAIR contracts.
- Institutionalize a culture that leverages and values small business participation in NAVAIR contract awards.
- Provide guidance, resourcing and barrier removal for established teams (Performance Analysis, Process and Communication/Best Practices).



# FY11 Small Business Obligations



- NAVAIR HQ
- NAVAL AIR WARFARE CENTER
- FLEET READINESS CENTER

Source: FPDS-NG 8 Nov 11

**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
- Launch & Recovery
- UAVS
- Atlantic Test Range & Ground Systems Test Facilities
- Human Performance / Simulator Systems



# Do Your Homework



**Review NAVAIR website – [www.navair.navy.mil](http://www.navair.navy.mil)**

**Review NAVAIR OSBP website—[www.navair.navy.mil/osbp](http://www.navair.navy.mil/osbp)**

- Strategic plans**
- NAWCAD operating plan**
- Long Range Acquisition Forecast**
- Links to other NAVAIR websites**
- Links to recent briefings**

**Review FPDS-NG website – [www.fpds.gov](http://www.fpds.gov)**

- Find out what NAVAIR procured in the past**



# Find Opportunities



Browser address bar: <http://www.navair.navy.mil/osbp/>

Browser menu: File Edit View Favorites Tools Help

Browser tabs: NAVAIR Office of Small Business Programs

Browser icons: Home, RSS, Print, Page, Settings



**NAVAL AIR SYSTEMS COMMAND**

NAVAIR Home

## OFFICE OF SMALL BUSINESS PROGRAMS



- HOME
- ABOUT US
- UPCOMING EVENTS
- REGISTER YOUR BUSINESS
- FIND INDUSTRY PARTNER
- OPEN SOLICITATIONS
- OPEN SOLICITATIONS - LESS THAN \$25K
- PRESENTATIONS
- MENTOR/PROTÉGÉ
- BUSINESS DEVELOPMENT
- GUIDANCE TO INDUSTRY
- NAVAIR SMALL BUSINESS PERFORMANCE
- SMALL BUSINESS INNOVATION RESEARCH
- RELATED LINKS
- CONTACT INFO
- SUGGESTIONS
- NAVAIR HOME

### NAVAIR's Long Range Acquisition Forecast Covering FYs 12-14 (NEW) January 30, 2012

NAVAIR's Long Range Acquisition Forecast (LRAF), covering FY12 through FY14, is now available under the Procurement Forecast section of the "Presentations" link (or click on the heading title above to access). NAVAIR's LRAF creates a demand signal visible to a wider range of industry and should contribute to better support of our requirements including the distinct prospect of fostering increased competition. (Note: The LRAF has been updated with upcoming requirements for IT (Line 335-336)).

### Sources Sought: P-8A (Boeing 737) Commercial Spare Parts February 13, 2012

The P-8A Program Office (PMA-290), is conducting a market survey to identify potential business sources who have the resources, capabilities and experience to procure and deliver Boeing 737 commercial common initial spare parts for P-8A Aircraft. The NAICS Code for this procurement is 336412 -- Aircraft Engine and Engine Parts Manufacturing; and the classification code is 15 -- Aircraft & airframe structural components. Please refer to solicitation number N00019-R-12-3001 on FedBizOpps. <https://www.fbo.gov/spq/DON/NAVAIR/N00019/N00019-R-12-3001/listing.html>.

### \*\*\*SAVE THE DATE\*\*\* NAWCWD Industry Day 2012 February 9, 2012

23 May 2012 - The Naval Air Warfare Center Weapons Division (NAWCWD) anticipates hosting "NAWCWD Industry Day 2012." The objective of this event is to enhance NAWCWD-Industry collaboration in support of the Naval Aviation Warfighter. Details on the event will be provided on the following website in the near future: <http://www.navair.navy.mil/nawcwd/index.html>

### \*\*\*SAVE THE DATE\*\*\* NAWCWD Multi-Use Technology Symposium February 9, 2012

24 May 2012 - The Naval Air Warfare Center Weapons Division (NAWCWD) anticipates hosting a Multi-Use Technology Symposium focused on Unmanned Systems. More details will be provided in the near future.

### Source Sought for the Mechanical Facilities Team (4.5.12) February 7, 2012

The Naval Air Warfare Center Aircraft Division Contracts Department (AIR 2.5.1.2), Patuxent River, MD announces its intention to procure on a competitive basis the services necessary to provide support to the Ship & Shore Based Electronic Systems (S&SBES) Team (Code 4.5), St. Inigoes, MD. The Ship & Shore Based Electronic Systems (S&SBES) Team (Code 4.5), St. Inigoes, of the Naval Air Warfare Center Aircraft Division performs development, testing, installation, and maintenance of shipboard and shore based electronic equipment. In support of this mission, the Mechanical Facilities Team (4.5.12) provides research and

Connect with Us





# Guidance To Industry



- **Company Data Sheet**

- No more than three pages (MS Office document) about your company and products or services
- Tailored for NAVAIR
- Keep it simple, but make your company stand out

- **Answer the following**

- Company point of contact information
- Describe what your company does (products or services)
- How your mission relates to Naval Aviation
- Product commercially available?
- Intellectual property rights?
- Product utilized with or on any other DoD, government, or commercial platform?
- Quantitative data on product performance
- Small business certifications, current contract vehicles and NAICS

**Posted on NAVAIR OSBP website under the Guidance to Industry.**  
**[www.navair.navy.mil/osbp](http://www.navair.navy.mil/osbp)**



# Let Us Know!



When NAVAIR issues a sole source synopsis and you believe you can provide the supplies/services, **LET US KNOW!**

If you know a full and open competition is pending or you see a full and open competition synopsis and you think there are 2 or more SDVOSBs, 8(a)s, HUBZones, WOSBs, or small businesses that can do the work, **LET US KNOW!**

Work closely with the contracts specialist and the small business deputy.

**NAVAIR OSBP Website**  
**[www.navair.navy.mil/osbp](http://www.navair.navy.mil/osbp)**

*Enabling the war fighter with creative solutions brought to them through small business.*



# Tips for Responding to a Sources Sought Announcement



- **Tips**

- **Show holistic capability – technical, but also management practices, financial stability, quality processes, able to manage subcontractors, discriminators, etc.**
- **Provide more detail on number of employees and company locations**
- **Show how you will minimize transition risk**
- **Request clarification, if needed**
- **Meet the response timeline**



# Sources Sought Responses



- **Areas where industry can improve**
  - Answer all the questions
  - Be sure you are addressing a NAVAIR requirement and not one from another agency or service
  - Be sure to discuss all the items that will be evaluated
  - Address only experience that is applicable to the requirement
  - Validate your claims of capability
  - If you combine past performance contracts, be sure to provide a break out of scope and complexity of each
  - If you propose teaming, show value-added
  - Address how you will manage subcontractors and prior experience in this area
  - If admitting lack of capability or experience; offer solution, mitigation, alternative, etc.



# Questions



# Back Up



# Upcoming Events



## **Southern Maryland Regional Technology Opportunities Showcase**

- **Date: 16 May 2012 (will need to be rescheduled to a later date)**
- **Time: TBD**
- **Location: Southern Maryland Higher Education Center**
- **Hosted by St. Mary's County, Dept. of Economic & Community Development and Maryland technology Development Corporation**

**National Small Business Contracting Week – DC 27-29 March**

**Sea-Air-Space – DC 15-18 April**

**22<sup>nd</sup> Annual OSDBU Procurement Conference – DC 19 Apr**

**NAWCWD Industry Day – 23 May**

**NAWCWD Multi-use Technology Symposium – 24 May**

**Navy Opportunity Forum – Crystal City 4-6 June**

**Small Business Roundtable General Membership Meeting – Pax River 7 June**

**Blue Coast – Baltimore 11-12 Jun**

**National Vets Small Business Conference & Expo – Detroit 26-29 Jun**

**Gold Coast – San Diego 6-10 August**



# NAVAIR TARGETS VS. ACTUALS



	NAVAIR FY09	NAVAIR FY10	NAVAIR FY11	NAVAIR FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 24,426,992,857</b>	<b>\$ 21,841,642,557</b>	<b>\$ 21,507,867,235</b>	<b>\$ 14,928,425,004</b>
<b>Small Business</b>	<b>6.575%</b>	<b>8.483%</b>	<b>7.962%</b>	<b>3.728%</b>
Target	8.400%	5.900%	7.000%	7.300%
Dollars	\$ 1,605,978,016	\$ 1,852,837,727	\$ 1,712,535,182	\$ 556,514,584
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>1.932%</b>	<b>2.277%</b>	<b>2.458%</b>	<b>1.766%</b>
Target	1.940%	1.650%	1.800%	2.000%
Dollars	\$ 471,996,464	\$ 497,412,409	\$ 528,617,699	\$ 263,661,128
<b>VETERAN-OWNED SB**</b>	<b>1.44%</b>	<b>2.179%</b>	<b>2.608%</b>	<b>0.851%</b>
Dollars	\$ 352,164,249	\$ 475,918,072	\$ 560,834,907	\$ 126,972,001
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>0.405%</b>	<b>1.307%</b>	<b>1.678%</b>	<b>0.510%</b>
Target	3.000%	3.000%	0.500%	0.750%
Dollars	\$ 98,820,093	\$ 285,577,411	\$ 360,971,677	\$ 76,204,645
<b>WOMAN-OWNED SB</b>	<b>1.020%</b>	<b>1.137%</b>	<b>0.846%</b>	<b>0.562%</b>
Target	1.540%	0.950%	1.000%	1.000%
Dollars	\$ 249,179,983	\$ 248,427,814	\$ 181,948,307	\$ 83,908,325
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>0.239%</b>	<b>0.200%</b>	<b>0.223%</b>	<b>0.068%</b>
Target	0.440%	0.200%	0.150%	0.200%
Dollars	\$ 58,497,036	\$ 42,522,505	\$ 47,984,406	\$ 10,133,705



# NAVAIR HQs TARGETS VS. ACTUALS



	NAVAIR HQs FY09	NAVAIR HQs FY10	NAVAIR HQs FY11	NAVAIR HQs FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 20,099,154,452</b>	<b>\$ 17,292,217,996</b>	<b>\$ 16,800,502,687</b>	<b>\$ 13,107,078,355</b>
<b>Small Business</b>	<b>0.512%</b>	<b>0.307%</b>	<b>0.271%</b>	<b>0.029%</b>
Target	0.571%	0.550%	0.635%	0.400%
Dollars	\$ 102,905,132	\$ 53,000,999	\$ 45,452,247	\$ 3,803,534
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>0.009%</b>	<b>0.010%</b>	<b>0.046%</b>	<b>0.021%</b>
Target	0.011%	0.002%	0.080%	0.050%
Dollars	\$ 1,755,216	\$ 1,774,107	\$ 7,798,880	\$ 2,761,180
<b>VETERAN-OWNED SB**</b>	<b>0.298%</b>	<b>0.094%</b>	<b>0.120%</b>	<b>0.007%</b>
Dollars	\$ 59,985,680	\$ 16,300,407	\$ 20,153,283	\$ 882,443
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>0.060%</b>	<b>0.010%</b>	<b>0.006%</b>	<b>0.001%</b>
Target	3.000%	3.000%	0.080%	0.008%
Dollars	\$ 12,011,040	\$ 1,768,102	\$ 1,004,051	\$ 115,872
<b>WOMAN-OWNED SB</b>	<b>0.003%</b>	<b>0.002%</b>	<b>0.004%</b>	<b>0.001%</b>
Target	0.041%	0.030%	0.050%	0.025%
Dollars	\$ 553,550	\$ 394,664	\$ 640,703	\$ 70,420
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>0.023%</b>	<b>-0.001%</b>	<b>0.010%</b>	<b>0.004%</b>
Target	0.021%	0.028%	0.000%	0.004%
Dollars	\$ 4,673,255	\$ (174,398)	\$ 1,730,772	\$ 576,924



# NAVAIR PAX TARGETS VS. ACTUALS



	NAWCAD PAX FY09	NAWCAD PAX FY10	NAWCAD PAX FY11	NAWCAD PAX FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 1,891,173,838</b>	<b>\$ 1,852,715,322</b>	<b>\$ 1,888,693,306</b>	<b>\$ 866,010,560</b>
<b>Small Business</b>	<b>29.698%</b>	<b>28.304%</b>	<b>20.811%</b>	<b>22.000%</b>
Target	31.711%	29.700%	31.500%	28.000%
Dollars	\$ 561,645,861	\$ 524,392,761	\$ 393,064,749	\$ 190,525,891
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>10.811%</b>	<b>8.703%</b>	<b>8.309%</b>	<b>11.189%</b>
Target	7.131%	9.672%	9.750%	8.700%
Dollars	\$ 204,462,081	\$ 161,238,960	\$ 156,934,237	\$ 96,894,384
<b>VETERAN-OWNED SB**</b>	<b>8.369%</b>	<b>6.990%</b>	<b>7.329%</b>	<b>6.828%</b>
Dollars	\$ 158,266,693	\$ 129,506,529	\$ 136,690,405	\$ 59,127,428
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>2.789%</b>	<b>2.370%</b>	<b>3.726%</b>	<b>4.077%</b>
Target	3.000%	3.000%	3.000%	3.500%
Dollars	\$ 52,745,866	\$ 43,904,631	\$ 70,373,963	\$ 35,306,686
<b>WOMAN-OWNED SB</b>	<b>5.226%</b>	<b>6.939%</b>	<b>4.094%</b>	<b>4.155%</b>
Target	5.481%	5.270%	6.000%	4.890%
Dollars	\$ 98,837,611	\$ 128,557,104	\$ 77,316,784	\$ 35,982,541
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>0.748%</b>	<b>0.801%</b>	<b>0.655%</b>	<b>0.808%</b>
Target	0.461%	0.870%	0.820%	0.750%
Dollars	\$ 14,140,185	\$ 14,839,741	\$ 12,365,406	\$ 6,996,635



# NAVAIR LAKEHURST TARGETS VS. ACTUALS



	NAWCAD LKE FY09	NAWCAD LKE FY10	NAWCAD LKE FY11	NAWCAD LKE FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 1,113,313,012</b>	<b>\$ 1,365,884,784</b>	<b>\$ 1,397,875,948</b>	<b>\$ 397,376,645</b>
<b>Small Business</b>	<b>40.769%</b>	<b>60.02%</b>	<b>61.376%</b>	<b>44.723%</b>
Target	47.771%	28.50%	47.000%	48.200%
Dollars	\$ 453,889,841	\$ 819,738,365	\$ 857,965,589	\$ 177,720,237
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>10.432%</b>	<b>11.70%</b>	<b>13.377%</b>	<b>17.166%</b>
Target	7.411%	7.25%	10.000%	10.500%
Dollars	\$ 116,144,994	\$ 159,772,804	\$ 187,000,136	\$ 68,213,326
<b>VETERAN-OWNED SB**</b>	<b>6.957%</b>	<b>20.72%</b>	<b>25.096%</b>	<b>6.664%</b>
Dollars	\$ 77,451,101	\$ 283,030,674	\$ 328,400,044	\$ 26,483,046
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>2.406%</b>	<b>16.48%</b>	<b>18.001%</b>	<b>2.703%</b>
Target	3.000%	3.00%	3.000%	4.960%
Dollars	\$ 26,783,264	\$ 225,035,940	\$ 251,634,903	\$ 10,740,810
<b>WOMAN-OWNED SB</b>	<b>6.690%</b>	<b>4.60%</b>	<b>3.668%</b>	<b>6.485%</b>
Target	8.101%	4.97%	5.600%	4.890%
Dollars	\$ 74,481,810	\$ 62,892,625	\$ 51,270,944	\$ 25,769,665
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>1.572%</b>	<b>1.16%</b>	<b>1.629%</b>	<b>0.585%</b>
Target	0.810%	1.17%	1.000%	1.490%
Dollars	\$ 17,502,050	\$ 15,844,693	\$ 22,769,417	\$ 2,324,327



# TSD ORLANDO TARGETS VS. ACTUALS



	NAWCTSD FY09	NAWCTSD FY10	NAWCTSD FY11	NAWCTSD FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 721,385,643</b>	<b>\$ 660,568,266</b>	<b>\$ 761,247,298</b>	<b>\$ 262,263,505</b>
<b>Small Business</b>	<b>40.310%</b>	<b>40.69%</b>	<b>23.695%</b>	<b>27.316%</b>
Target	30.000%	30.00%	36.000%	22.000%
Dollars	\$ 290,790,803	\$ 268,808,508	\$ 180,376,631	\$ 71,638,612
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>14.556%</b>	<b>19.20%</b>	<b>12.065%</b>	<b>15.812%</b>
Target	6.500%	12.25%	10.000%	9.000%
Dollars	\$ 105,002,048	\$ 126,828,759	\$ 91,846,846	\$ 41,469,426
<b>VETERAN-OWNED SB**</b>	<b>3.568%</b>	<b>2.05%</b>	<b>5.539%</b>	<b>3.563%</b>
Dollars	\$ 25,735,993	\$ 13,570,848	\$ 44,969,358	\$ 9,344,235
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>0.347%</b>	<b>0.92%</b>	<b>2.854%</b>	<b>1.699%</b>
Target	3.000%	3.00%	1.000%	2.180%
Dollars	\$ 2,505,622	\$ 6,081,098	\$ 21,723,505	\$ 4,455,564
<b>WOMAN-OWNED SB</b>	<b>8.140%</b>	<b>5.93%</b>	<b>5.292%</b>	<b>6.516%</b>
Target	7.000%	6.00%	5.500%	5.100%
Dollars	\$ 58,718,633	\$ 39,146,607	\$ 40,287,914	\$ 17,089,999
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>0.185%</b>	<b>0.66%</b>	<b>0.683%</b>	<b>0.012%</b>
Target	0.500%	0.93%	0.800%	0.250%
Dollars	\$ 1,335,401	\$ 4,343,433	\$ 5,196,787	\$ 31,242



# NAWCAD PAX RIVER, LAKEHURST & ORLANDO



## NAWCAD PATUXENT RIVER, LAKEHURST AND ORLANDO

	NAWCAD FY09	NAWCAD FY10	NAWCAD FY11	NAWCAD FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 3,725,872,494</b>	<b>\$ 3,879,168,372</b>	<b>\$ 4,047,816,552</b>	<b>\$ 1,525,650,709</b>
<b>Small Business</b>	<b>35.061%</b>	<b>41.580%</b>	<b>35.362%</b>	<b>28.833%</b>
Dollars	\$ 1,306,326,505	\$ 1,612,939,633	\$ 1,431,406,969	\$ 439,884,740
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>11.423%</b>	<b>11.545%</b>	<b>10.766%</b>	<b>13.540%</b>
Dollars	\$ 425,609,123	\$ 447,840,524	\$ 435,781,220	\$ 206,577,136
<b>VETERAN-OWNED SB</b>	<b>7.017%</b>	<b>10.98%</b>	<b>12.60%</b>	<b>6.224%</b>
Dollars	\$ 261,453,786	\$426,108,050	\$510,059,807	\$94,954,709
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>2.202%</b>	<b>7.090%</b>	<b>8.492%</b>	<b>3.310%</b>
Dollars	\$ 82,034,751	\$ 275,021,669	\$ 343,732,371	\$ 50,503,059
<b>WOMAN-OWNED SB</b>	<b>6.228%</b>	<b>5.944%</b>	<b>4.172%</b>	<b>5.168%</b>
Dollars	\$ 232,038,054	\$ 230,596,336	\$ 168,875,642	\$ 78,842,204
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>0.885%</b>	<b>0.903%</b>	<b>0.996%</b>	<b>0.996%</b>
Dollars	\$ 32,977,636	\$ 35,027,867	\$ 40,331,609	\$ 9,352,204



# NAWCWD TARGETS VS. ACTUALS



	NAWCWD FY09	NAWCWD FY10	NAWCWD FY11	NAWCWD FY12 ACTUALS as of 29 FEB 12
<b>Prime Contracting</b>				
<b>Total Dollars</b>	<b>\$ 601,965,912</b>	<b>\$ 685,639,659</b>	<b>\$ 659,547,997</b>	<b>\$ 295,695,940</b>
<b>Small Business</b>	<b>32.684%</b>	<b>27.094%</b>	<b>35.733%</b>	<b>38.156%</b>
Target	37.151%	30.000%	31.000%	31.000%
Dollars	\$ 196,746,379	\$ 185,770,055	\$ 235,675,966	\$ 112,826,310
<b>SMALL DISADVANTAGED BUSINESS</b>	<b>7.414%</b>	<b>6.903%</b>	<b>12.893%</b>	<b>18.371%</b>
Target	13.391%	6.216%	8.500%	10.000%
Dollars	\$ 44,632,126	\$ 47,328,920	\$ 85,037,599	\$ 54,322,813
<b>VETERAN-OWNED SB**</b>	<b>5.104%</b>	<b>4.825%</b>	<b>4.772%</b>	<b>10.529%</b>
Dollars	\$ 30,724,783	\$ 33,084,316	\$ 30,621,817	\$ 31,134,848
<b>SERVICE-DISABLED VETERAN-OWNED SB</b>	<b>0.793%</b>	<b>1.204%</b>	<b>2.462%</b>	<b>8.653%</b>
Target	3.000%	3.000%	1.200%	2.100%
Dollars	\$ 4,774,302	\$ 8,255,231	\$ 16,235,254	\$ 25,585,713
<b>WOMAN-OWNED SB</b>	<b>2.756%</b>	<b>2.559%</b>	<b>1.885%</b>	<b>1.689%</b>
Target	2.991%	2.679%	2.900%	2.550%
Dollars	\$ 16,588,380	\$ 17,544,497	\$ 12,431,962	\$ 4,995,700
<b>HIST. UNDERUTILIZED BUSINESS ZONE SB</b>	<b>3.463%</b>	<b>1.009%</b>	<b>0.898%</b>	<b>0.069%</b>
Target	1.671%	0.859%	0.800%	1.000%
Dollars	\$ 20,846,145	\$ 6,919,035	\$ 5,922,025	\$ 204,577



# SDVOSBs



	FY09	FY10	FY11	FY12 as of 29 FEB 12
<b>NAWCWD</b>				
Goal	3.000%	3.000%	1.200%	2.100%
Actual Percentage	<b>0.793%</b>	<b>1.204%</b>	<b>2.462%</b>	<b>8.653%</b>
Dollars Obligated to SDVOSBs	\$ 4,774,302	\$ 8,255,231	\$ 16,235,254	\$ 25,585,713
Total Dollar Amount	\$ 601,965,912	\$ 685,639,659	\$ 659,547,997	\$ 295,695,940
<b>NAWCAD PAX RIVER</b>				
Goal	3.000%	3.000%	3.000%	3.500%
Actual Percentage	<b>2.789%</b>	<b>2.370%</b>	<b>3.726%</b>	<b>4.077%</b>
Dollars Obligated to SDVOSBs	\$ 52,745,866	\$ 43,904,631	\$ 70,373,963	\$ 35,306,686
Total Dollar Amount	\$ 1,891,173,838	\$ 1,852,715,322	\$ 1,888,693,306	\$ 866,010,560
<b>NAWC TSD ORLANDO</b>				
Goal	3.000%	3.000%	1.000%	2.180%
Actual Percentage	<b>0.347%</b>	<b>0.921%</b>	<b>2.854%</b>	<b>1.699%</b>
Dollars Obligated to SDVOSBs	\$ 2,505,622	\$ 6,081,098	\$ 21,723,505	\$ 4,455,564
Total Dollar Amount	\$ 721,385,643	\$ 660,568,266	\$ 761,247,298	\$ 262,263,505
<b>NAWCAD LAKEHURST</b>				
Goal	3.000%	3.000%	3.000%	4.960%
Actual Percentage	<b>2.406%</b>	<b>16.475%</b>	<b>18.001%</b>	<b>2.703%</b>
Dollars Obligated to SDVOSBs	\$ 26,783,264	\$ 225,035,940	\$ 251,634,903	\$ 10,740,810
Total Dollar Amount	\$ 1,113,313,012	\$ 1,365,884,784	\$ 1,397,875,948	\$ 397,376,645
<b>TOTAL</b>				
Total Dollars Obligated to SDVOSBs	\$86,809,054	\$283,276,900	\$359,967,626	\$76,088,773
Total Dollars Obligated	\$4,327,838,405	\$4,564,808,032	\$4,707,364,549	\$1,821,346,649
<b>Total NAWC Percentage</b>	<b>2.01%</b>	<b>6.21%</b>	<b>7.65%</b>	<b>4.18%</b>



# WOSBs



	FY09	FY10	FY11	FY12 as of 29 FEB 12
<b>NAWCWD</b>				
Goal	2.991%	2.679%	2.900%	2.550%
<b>Actual Percentage</b>	<b>2.756%</b>	<b>2.602%</b>	<b>1.885%</b>	<b>1.689%</b>
Dollars Obligated to WOSBs	\$ 16,588,380	\$ 17,436,814	\$ 12,431,962	\$ 4,995,700
Total Dollar Amount	\$ 601,965,912	\$ 670,256,189	\$ 659,547,997	\$ 295,695,940
<b>NAWCAD PAX RIVER</b>				
Goal	5.481%	5.270%	6.000%	4.890%
<b>Actual Percentage</b>	<b>5.226%</b>	<b>6.939%</b>	<b>4.094%</b>	<b>4.155%</b>
Dollars Obligated to WOSBs	\$ 98,837,611	\$ 128,557,104	\$ 77,316,784	\$ 35,982,541
Total Dollar Amount	\$ 1,891,173,838	\$ 1,852,715,322	\$ 1,888,693,306	\$ 866,010,560
<b>NAWC TSD ORLANDO</b>				
Goal	7.000%	6.000%	5.500%	5.100%
<b>Actual Percentage</b>	<b>8.140%</b>	<b>5.926%</b>	<b>5.292%</b>	<b>6.516%</b>
Dollars Obligated to WOSBs	\$ 58,718,633	\$ 39,146,607	\$ 40,287,914	\$ 17,089,999
Total Dollar Amount	\$ 721,385,643	\$ 660,568,266	\$ 761,247,298	\$ 262,263,505
<b>NAWCAD LAKEHURST</b>				
Goal	8.101%	4.970%	5.600%	4.890%
<b>Actual Percentage</b>	<b>6.690%</b>	<b>4.605%</b>	<b>3.668%</b>	<b>6.485%</b>
Dollars Obligated to WOSBs	\$ 74,481,810	\$ 62,892,625	\$ 51,270,944	\$ 25,769,665
Total Dollar Amount	\$ 1,113,313,012	\$ 1,365,884,784	\$ 1,397,875,948	\$ 397,376,645
<b>TOTAL</b>				
Total Dollars Obligated to WOSBs	\$248,626,434	\$248,033,149	\$181,307,604	\$83,837,905
Total Dollars Obligated	\$4,327,838,405	\$4,549,424,561	\$4,707,364,549	\$1,821,346,649
<b>Total NAWC Percentage</b>	<b>5.74%</b>	<b>5.45%</b>	<b>3.85%</b>	<b>4.60%</b>



# USD(AT&L) Memo – 24 August 2011



ACQUISITION,  
TECHNOLOGY  
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE  
3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

AUG 24 2011

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Increasing Small Business Procurement in Critical 4<sup>th</sup> Quarter

Increasing contracting opportunities for small businesses remains a top priority for the Administration. **We are falling short of meeting our Department-wide small business contracting goal of 22.3 percent for FY 2011, and I need your help** to ensure that as we enter the last 6 weeks of this fiscal year, small businesses are given the maximum practicable opportunity to receive unobligated contract dollars.

The Department is committed to meeting its small business contracting goals for FY 2011 and beyond. Attached is information that may assist your organization in improving its small business contract performance. Please share this information with everyone in your organization that is involved in the acquisition process to include planning, requirements definition, and market research. Ask them to be personally engaged in improving our performance in this important area. It is not the sole responsibility of contracting officers to achieve this goal but the collective responsibility of every leader in your organization who manages a budget and allocates funds that will go on contract. They should all work closely with your small business directors to identify opportunities to, and maximize efforts toward, achieving the Department's small business goals.

Thank you in advance for your hard work to increase opportunities for small businesses in the final weeks of this fiscal year and to lay the foundation for continued small business success in FY 2012. My point of contact is Andre Gudger, OSD Director of Small Business Programs, at 703-604-0157, Extension 140 or [andre.gudger@osd.mil](mailto:andre.gudger@osd.mil).

Ashton B. Carter

Attachment:  
As stated

- Increasing contracting opportunities for small businesses top priority for the Administration.
- DoD is falling short of meeting small business goal of 22.3 percent for FY11.
- Small businesses must be given maximum practicable opportunity to receive unobligated contract dollars.
- DoD committed to meeting its small business contracting goals for FY11 and beyond.
- Share this information with everyone in your organization involved in the acquisition process to include planning, requirements definition and market research. Personally engage in improving performance.
- Contracting officers are not solely responsible. Every leader managing a budget and allocating funds for contracts is accountable.
- Work closely with your small business director.



# Under Secretary of the Navy Memo – 5 August 2011



THE UNDER SECRETARY OF THE NAVY  
WASHINGTON DC 20350-1000

August 5, 2011

## MEMORANDUM FOR DISTRIBUTION

SUBJECT: Maximizing Department of the Navy (DON) Opportunities for Small Businesses

The Honorable Sean Stackley, Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RD&A)), recently issued a memorandum, Attachment (1), to the DON acquisition community about the importance of seeking qualified and capable small businesses to provide the products, services, and solutions necessary to help our Sailors and Marines accomplish their assigned missions. I want to formally endorse Secretary Stackley's memo, and ask that each of you read it if you have not already done so. Small businesses often deliver technology and innovative capabilities with agility and lower costs. It, therefore, makes sense from both an economic and warfighting perspective to look towards small businesses as a means of meeting DON mission needs.

The White House has established federal goals for small business participation in all areas across our government. To that end, the Department of Defense has established goals for service component small business prime contracting participation to ensure maximum practicable opportunities for small business. We must all do our part to support this effort.

Accordingly, as we enter the last few months of Fiscal Year 2011, I want your attention and support to ensure that market research and analysis for standing requirements and remaining contracts is conducted in a manner that maximizes the opportunity for small business to compete at the prime contract level. In those instances where small business cannot serve as a prime contractor, please ensure your market analysis identifies potential opportunities for small business to serve as subcontractors.

Senior leadership is critical if we are to meet our goals. I would therefore like all Flag Officers, General Officers and Senior Executive Service members that influence acquisition decisions to develop and adopt performance standards that demonstrate support for the Department's small business mission.

Both ASN(RD&A) and the DON Office of Small Business Programs (OSBP) are available to support your organizations to develop small business acquisition strategies,

- Formally endorses Secretary Stackley's 19 July 2011 Memo and asks that we read it.
- DON must do its part to help the federal government meet the established small business goals.
- Maximize opportunities for small business participation as prime and subcontractor as we enter the end of FY11.
- Senior leadership is critical: Requires all Flag Officers, General Officers and Senior Executive Service members that influence acquisition decisions develop and adopt performance standards that demonstrate support for the Department's small business mission.



# ASN(RD&A) Memo – 19 July 11



DEPARTMENT OF THE NAVY  
OFFICE OF THE ASSISTANT SECRETARY  
(RESEARCH, DEVELOPMENT AND ACQUISITION)  
1000 NAVY PENTAGON  
WASHINGTON DC 20350-1000

JUL 19 2011

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Increased Use of Small Business Concerns

The Department of Defense (DOD) has placed special attention on increasing the use of small business in Fiscal Year 2011, consistent with the Better Buying Power initiatives, and to support the White House's 23% small business goal. In FY 2010, DOD attained 22.7%.

In light of delays caused by the continuing resolution, achieving the FY11 goal will require significant effort. Because a significant percentage of the Department of the Navy's procurement dollars purchase goods and services that cannot be provided by small business, DOD determined the Department of the Navy (DON) share of the 23% goal to be 18.9%. To meet this challenge, the DON must increase our awards to small business by an estimated \$1-2 billion over what was achieved in FY2010. Therefore, DoN acquisition and contracting activities are directed to 1) take immediate short term steps to measurably increase small business performance, 2) re-emphasize sound acquisition business practices to promote small business opportunity and 3) make long term process improvements for small business engagement. All of these align directly with the initiatives to improve acquisition excellence published in November 2009 and in Under Secretary of Defense, Acquisition, Technology, and Logistics, Better Buying Power Initiatives established by memorandum on September 24, 2010.

1) Immediate short term steps to measurably increase small business performance.

• **Federal Supply Schedules (FSS):** When using FSS to satisfy procurements between the micro-purchase and simplified acquisition threshold, ordering activities should consider socio-economic status when identifying contractor(s) for consideration or competition for award of an order (FAR 8.405-5(b)). Quotes should not be requested from large business concerns unless there is a determination that there are less than three small businesses on the schedule that will satisfy the government's requirements. The ordering activity contracting officer will document by memorandum when large business quotes are necessary, except when an ordering activity has approved justification limiting sources in accordance with 8.405-6.

• **Indefinite Delivery/Quantity (IDIQ) Multiple Award Contracts (MAC):** When using IDIQ MACs and where there are at least two small businesses on the award, task and delivery orders set-aside for competition by small business award holders are encouraged. Where only one small business exists on the contract, task and delivery order requirements should be developed to promote maximum opportunity for small

## Three focus areas:

### Immediate Short Term Steps

- **Federal Supply Schedule Use** - obtain quotes from SB Concerns
- **IDIQ Multiple Award Contracts** – encourages orders be set-aside for competition by SB award holders
- **Authorized Socio-Economic Sole Source Authority Use**

### Re-emphasis of Sound Acquisition Business Practice

- **Forecasting** – publish and update a three year forecast
- **Acquisition Strategy and Planning**
- **Perform Market Research**
- **Involve SB Specialist**
- **Document SB utilization strategy**
- **Consolidation and Bundling** – avoid unless documented as mission essential

### Long Term Process Improvement

- **Subcontracting**
  - Acquisition Strategies for ACAT I and ACAT II Programs must address Small Business and SBIR/STTR engagement
  - Technology Insertion Plan should identify SBIR/STTR technologies to be transitioned
  - Should include Small Business Incentive Fee when incentives are used
- **Accountability**
  - Senior leadership's performance standards will address demonstrating support for the DON SB mission



# 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)**



# Resources Available to Assist



First line of  
communication

after contract award

- Contracting Officer
- Administrative Contracting Officer
- Technical Customer
- NAVAIR Small Business Deputy
- Also:
  - SBA website (<http://www.sba.gov>)
    - Counseling – in person, email
    - Financial Assistance Training
    - Training
    - PTAC (<http://www.sellingtothegovernment.net>)



# NAVY SBIR Program at a Glance



*Presented by:*

**Ms. Donna H. Moore**

NAVAIR SBIR Program Manager

NAVAIR Public Release 2012-309

Distribution Statement A – “Approved for public release; distribution is unlimited.”



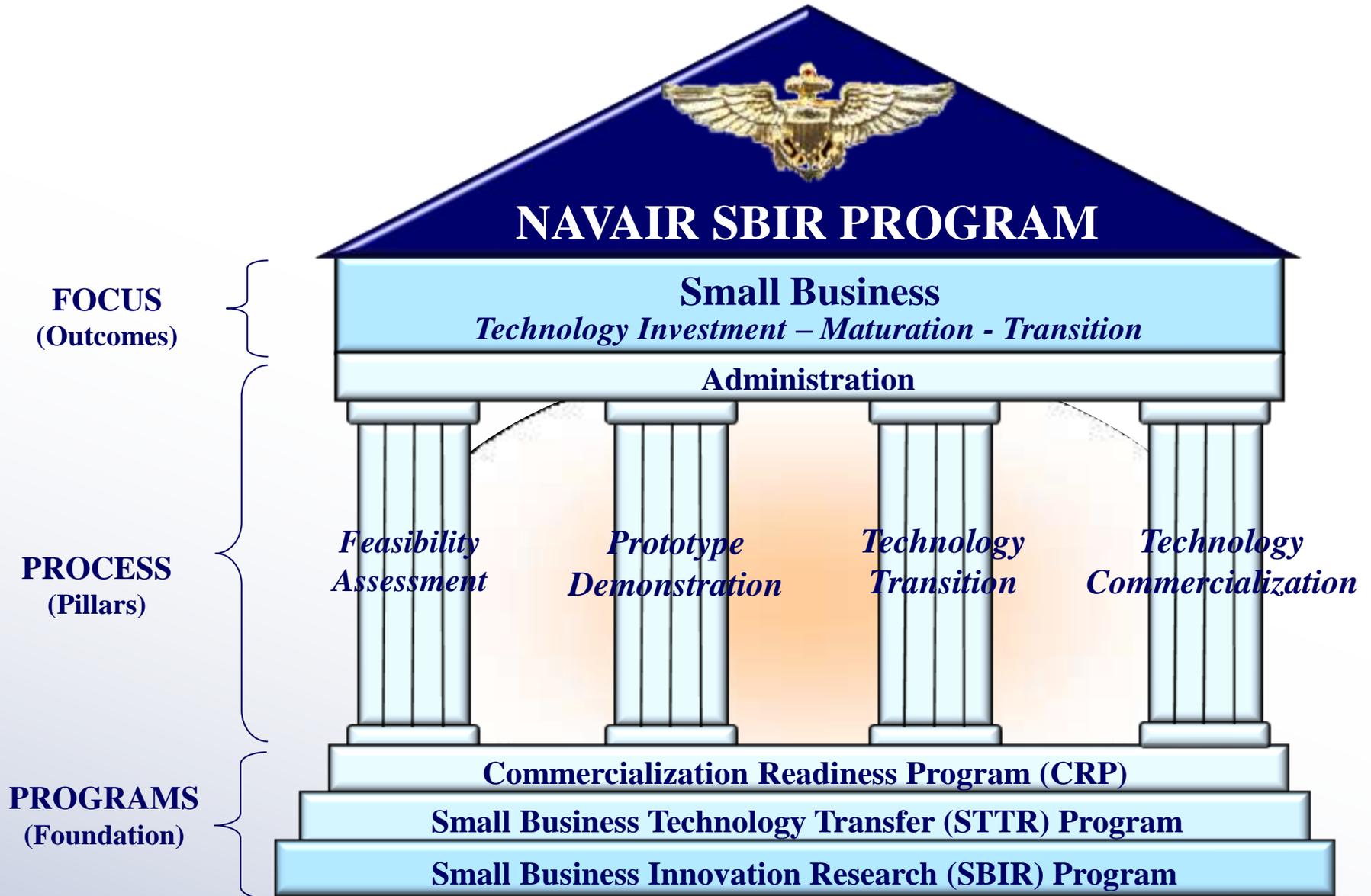
# Agenda



- SBIR Program Overview
- What is a SBIR company
- Program Elements and Goals
- Phases of SBIR
- SBIR Process
- Data Rights at a Glance
- Highlights of the SBIR Reauthorization



# NAVAIR SBIR Program Overview





# What Is a Small Business?



- Organized for profit
- 500 employees or less
- At least 51 percent owned by U.S. citizens
- Principal place of business located in U.S.



# SBIR Foundation / Program Elements



## Small Business Innovation Research (SBIR) Program

- Established by Congress in 1982
- Funds the critical startup and development stages and encourages the commercialization of technology, product or service.
- 2.6 % of Extramural RDT&E
  - ❖ 6 year authorization: Program will run through September 30, 2017
  - ❖ SBIR Allocation Increased from 2.5 to 3.2% starting in FY12 at 0.1% per FY

## Small Business Technology Transition (STTR) Program

- Established by Congress in 1992
- To create an effective vehicle for moving ideas from our nation's research institutions to the market. NAVAIR began management of the STTR program in 2004.
- 0.3 % of Extramural RDT&E
  - ❖ STTR Allocation Increased from 0.3 to 0.45% starting in FY12/13 at 0.05%

## Commercialization Readiness Program (CRP)

- Established by Congress in 2006
- To accelerate the transition of technologies, products, and services developed under SBIR to Phase III, including the acquisition process.
- Allows use of 1% of SBIR funds for CRP administration.
  - ❖ CPP: Renamed the Commercialization Readiness Program (CRP)



# SBIR Program Goals



## Small Business Innovation Development Act of 1982 Congress Identified Four Major Goals

**Goal 1** - Stimulate technological innovation

**Goal 2** - Use Small Businesses to meet Federal R&D needs

**Goal 3** - Foster and encourages minority and disadvantage  
business participation

**Goal 4** - Increase private sector commercialization innovations



# Phases of SBIR



## Phase I

**Purpose:** Determine topic feasibility and scientific or Technical merit.

**Period of Performance:** 6 months  
**Contract Value:** \$80K with \$70K option  
**Eligible Companies:** Small businesses  
**Competitive Solicitation**

## Phase II

**Purpose:** Demonstrate Innovative process or Prototype for Naval Aviation.

**Period of Performance:** 24 months  
**Contract Value:** NTE \$1.0M  
**Eligible Companies:** Successfully completed Phase I; Government Invitation; small business

**Phase II.5**  
**Purpose:** To bridge the gap between Phase II and Phase III.

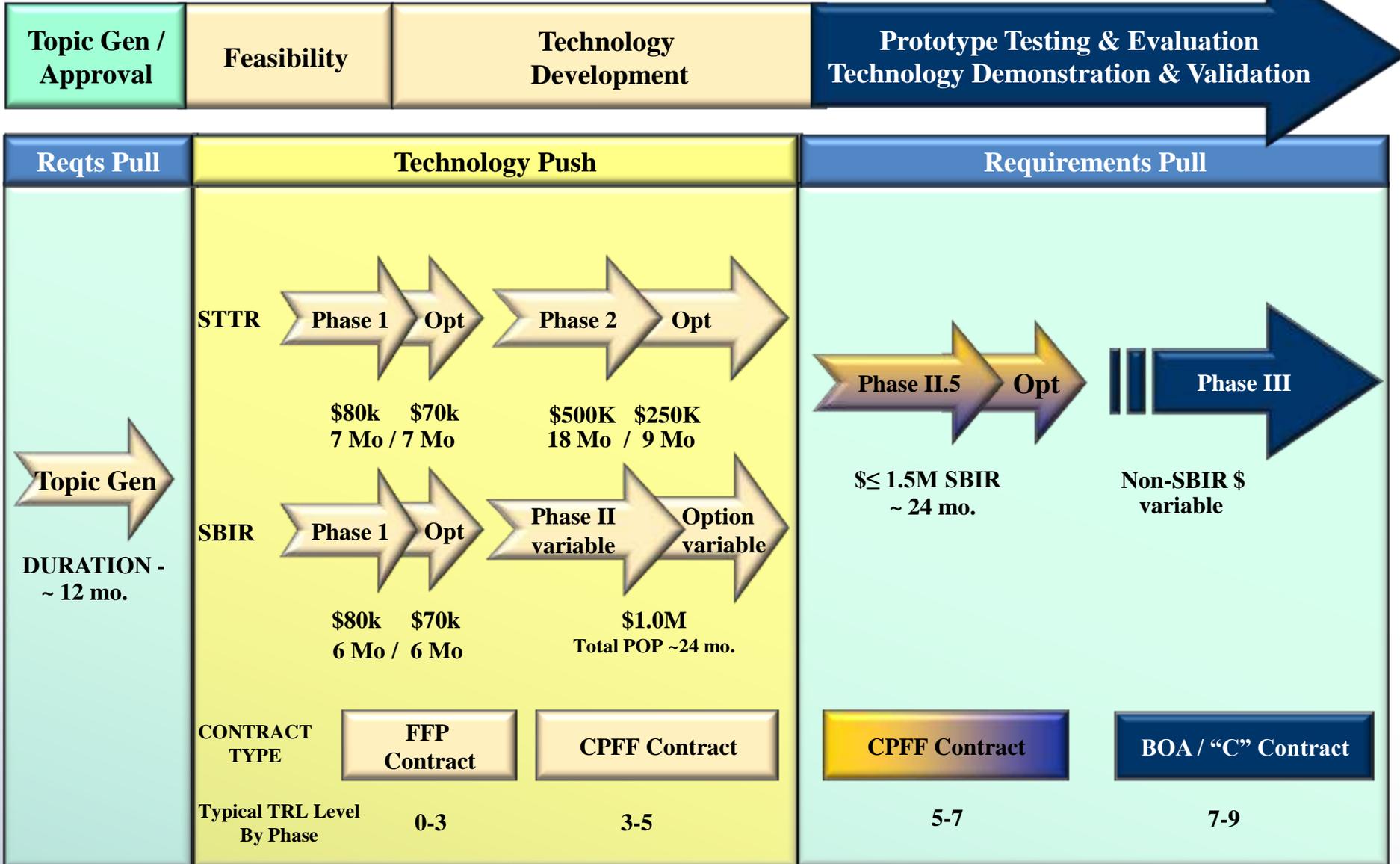
## Phase III

**Purpose:** Continue Phase II R&D Or commercialize a new product, process or application.

**Period of Performance:** Unlimited  
**Contract Value:** \$Unlimited  
**Eligible Companies:** Any SBIR company that has identified a non-SBIR source of funds



# NAVAIR SBIR / STTR Award Structure





# SBIR Data Rights – DFARS 242.227-7018



- The Government shall have SBIR data rights in all technical data or computer software *generated and delivered* under the SBIR effort during the period commencing with contract award and ending upon the date **five (5) years** after the completion of the project.
  
- The Government may not release or disclose SBIR data to any person, other than its support service contractors, except –
  - As expressly permitted by the Contractor; or for evaluation purposes; or a release, disclosure, or use that is necessary for emergency repair and overhaul of items operated by the Government.
  - Prior to release or disclosure, the intended recipient is subject to use and non-disclosure agreement at DFARS 227.7103-7 or a Government contractor receiving access to technical data or software for performance of a Government contract that contains the clause at DFARS 252.227-7025.



# SBIR Reauthorization Highlights



- **6 year authorization:** SBIR / STTR program will run through **September 30, 2017**
  
- **Participation by SBC's With Substantial Investment From Multiple Venture Capital (VC) Operating Companies, Hedge Funds, Or Private Equity Firms in a Portion of the SBIR Program:**  
The head of a Federal Agency other than the National Institute of Health (NIH), Secretary of Energy and National Science Foundation(NSF) that participate in the SBIR program may award Not More Than 15% of the funds allocated to the SBIR program, of the applicable Federal Agency, to SBC's that are owned in majority part by multiple Venture Capital Operating Companies, Hedge Funds, or Private Equity Firms through competitive, merit based procedures that are open to all eligible SBC's.
  
- **ADDITIONAL SBIR AND STTR AWARDS.**  
A small business concern that receives a Phase II SBIR award or a Phase II STTR award for a project remains eligible to receive 1 additional Phase II SBIR award or Phase II STTR award for continued work on that project.
  
- **SBIR and STTR Special Acquisition Preference:**  
Phase III Awards – To the greatest extent practicable, Federal Agencies and Federal Prime Contractors shall issue Phase III Awards relating to technology, including sole source awards, to the SBIR and STTR award recipients that developed the technology.
  
- **Award Flexibility (Subsequent Phase II Awards):**  
SBIR and STTR Program Flexibility: A Small Business Concern (SBC) that received a Phase I award under the SBIR or the STTR program may receive a subsequent Phase II award in EITHER the SBIR or STTR program



# SBIR Schedules



## NAVAIR SBIR / STTR 2012 Schedule

<u>ACTION</u>	<u>SBIR 12.1</u>	<u>STTR 12.A</u>	<u>SBIR 12.2</u>
Solicitation Pre-Release	9 November 2011	26 January 2012	24 April 2012
Solicitation Opens	12 December 2011	27 February 2012	24 May 2012
Solicitation Closes	11 January 2012	28 March 2012	27 June 2012

## “Notional” NAVAIR SBIR / STTR 2013 Schedule

<u>ACTION</u>	<u>SBIR 13.1</u>	<u>STTR 13.A</u>	<u>SBIR 13.2</u>	<u>SBIR 13.3/ STTR13.B</u>
Solicitation Pre-Release	09 November 2012	25 January 2013	24 April 2013	26 July 2013
Solicitation Opens	12 December 2012	27 February 2013	24 May 2013	27 August 2013
Solicitation Closes	11 January 2013	28 March 2013	27 June 2013	26 September 2013



# Helpful Links



- **DoD website:**  
<http://www.dodsbir.net/>
  
- **Navy SBIR website:**  
<http://www.navysbir.com/>
  
- **Navy Search Database:**  
<https://www.navysbirsearch.com>
  
- **DCAA/Audit Information:**  
<http://www.dcaa.mil/>
  
- **a DCAA publication, DCAAP 7641.90 January 2005- Information for Contractors, contains valuable information for contractors.**  
<http://www.dcaa.mil/dcaap7641.90.pdf>



# Who to Contact?



- NAVAIR SBIR Program Manager  
Ms. Donna Moore  
[donna.moore@navy.mil](mailto:donna.moore@navy.mil)
  
- NAVAIR SBIR Deputy Program Manager  
Ms. Kim Berche  
[kimberly.berche@navy.mil](mailto:kimberly.berche@navy.mil)
  
- NAVAIR Phase I & II Coordinator  
Mr. Paul Dolinar  
[Paul.dolinar@navy.mil](mailto:Paul.dolinar@navy.mil)
  
- NAVAIR STTR Coordinator  
Ms. Dusty Lang  
[dusty.lang@navy.mil](mailto:dusty.lang@navy.mil)

NAVAIR SBIR Main Contact Number: [301-342-0197](tel:301-342-0197)



# Questions



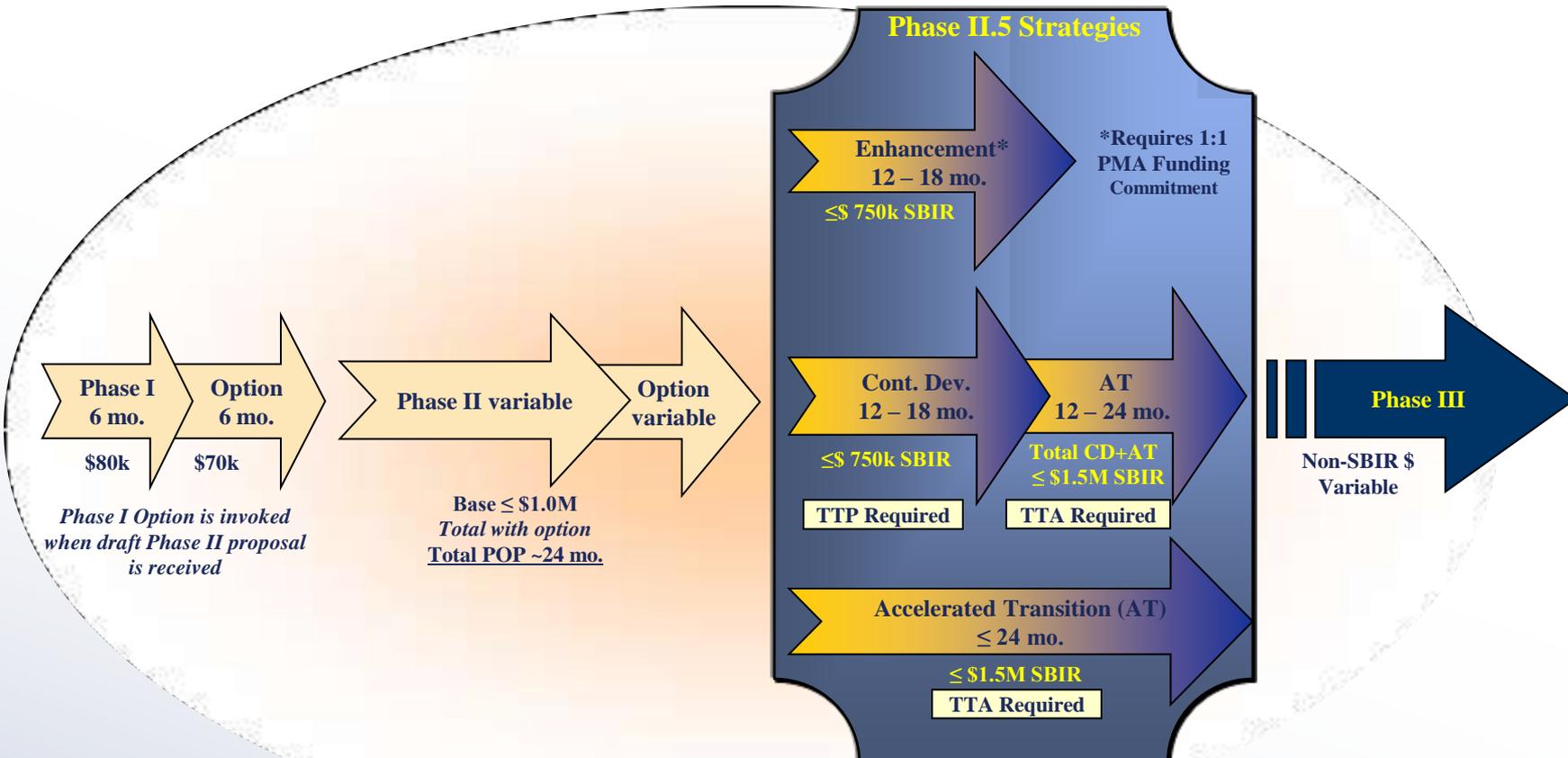
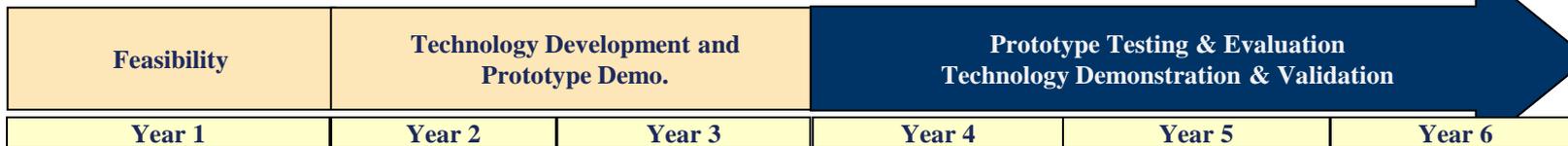
# Back Up



# NAVAIR SBIR/STTR Award Structure



ACTIVITY -



SBIR FUNDS -

NTE \$150K	NTE \$1M	NTE \$1.5M
NTE \$2.65M		

CONTRACT TYPE

FFP	Typically CPFF	CPFF or FFP	Any
-----	----------------	-------------	-----

Typical TRL Level  
By Phase -

~0-3	~2-5	~4-7	~6-9
------	------	------	------



# SBIR Proposer Eligibility and Limitations



- Qualify as a small business
- For Phase I – Carry out a minimum of two-thirds of the research and/or analytical work
- For Phase II – Carry out a minimum of one-half of the research and/or analytical work
- The primary employment of the principal investigator must be with the small business firm at the time of award and during the conduct of the proposed effort
  - More than one-half of the P.I.'s time is spent with the small business
  - Primary employment precludes full-time employment at another organization
- All R/R&D work must be performed by the small business in the U.S.



Break



# NAWCAD Contracts (2.0)



*Presented by:*

**CAPT Jim Patton**

Contracting Office (2.5)

NAVAIR Public Release 2012-319  
Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Acquisition Efficiency Guidance Roadmap



- Secretary Gates directed DoD to pursue Efficiency Initiatives
- “Better Buying Power” Guidance influences DoD’s ~\$400B annual spend on contracts for goods & services
- Efficiency Guidance = 23 principal actions grouped into 5 major areas
- Failure to realize efficiencies = lost warfighter capability, not an acceptable outcome

**Success requires both Government and Industry!**



# Acquisition Efficiency Guidance



## 1. Target Affordability and Control Cost Growth

- Mandate affordability as a requirement

## 2. Incentivize Productivity & Innovation in Industry

- Reward contractors for successful supply chain and indirect expense management

## 3. Promote Real Competition

- Remove obstacles to competition

## 4. Improve Tradecraft in Acquisition of Services

- Adopt uniform taxonomy for different types of services
- Enhance competition by requiring more frequent re-competes of knowledge-based services
- Increase small business participation

## 5. Reduce Non-Productive Processes and Bureaucracy



# Acquisition Efficiency



## ***Targeted behaviors to reduce costs & achieve efficiencies***

- Promoting Competition
  - Removing obstacles to competition
  - Allowing reasonable time to bid
  - Increasing small business participation and role in competition
- Enhancing competition by requiring knowledge based services requirement re-competitions more frequently
- Using proper contract type for services
  - Limit the use of time and materials and award fee contracts
  - Consideration of multiple award Contracts (MAC) IDIQ contracts
- Improving Tradecraft in Acquisition of Services
  - Adopted a uniform taxonomy for types of services
  - Allow adequate proposal development time by balancing requirement definition, market capability, risks, and cost effectiveness



# Acquisition Efficiency



## *Targeted behaviors to reduce costs & achieve efficiencies*

- Increase small business participation
  - Federal Supply Schedules for requirements \$3000-\$150,000
    - Set-aside for small business
  - MAC IDIQ Task Order competitions encouraged to consider SB set-aside where two or more SB determined capable.
- Emphasis on acquisition development to promote small business opportunities

**Small Business Opportunity + Competition =  
Greater Chance of Success!**



# NAVAIR 2.0 Structure



**2.0**  
ASSISTANT COMMANDER FOR CONTRACTS

**2.0A**  
DEPUTY ASSISTANT COMMANDER FOR CONTRACTS (MILITARY)

**2.0B**  
DEPUTY ASSISTANT COMMANDER FOR CONTRACTS (CIVILIAN)

**2.1**  
POLICY & PROCESS MANAGEMENT

**2.2**  
MAJOR WEAPONS SYSTEMS FOR TACTICAL AIRCRAFT AND MISSILES

**2.3**  
MAJOR WEAPONS SYSTEMS FOR AIR ASW, ASSAULT & SPECIAL MISSION PROGRAMS

**2.4**  
STRIKE WEAPONS AND UNMANNED AVIATION & AIR 1.0 PROGRAMS

**2.5**  
AIRCRAFT SUPPORT CONTRACTS

**2.6**  
JOINT STRIKE FIGHTER

Deputy 2.1A

Deputy 2.2A

Deputy 2.3A

Deputy 2.4A

Deputy, 2.5A  
Deputy, 2.5B

Deputy (Deployed) 2.6A

- 2.1 DIVISION HEADS
- 2.1.1 POLICY & PROCESS MANAGEMENT
  - 2.1.2 ELECTRONIC ACQUISITION
  - 2.1.3 RESOURCE MANAGEMENT

- 2.2 DIVISION HEADS
- 2.2.1 TACTICAL EW/ MISSILES
  - 2.2.2 E-2/C-2, E-2D
  - 2.2.3 F/A-18
  - 2.2.4 AV-8B, E-6B, T-45

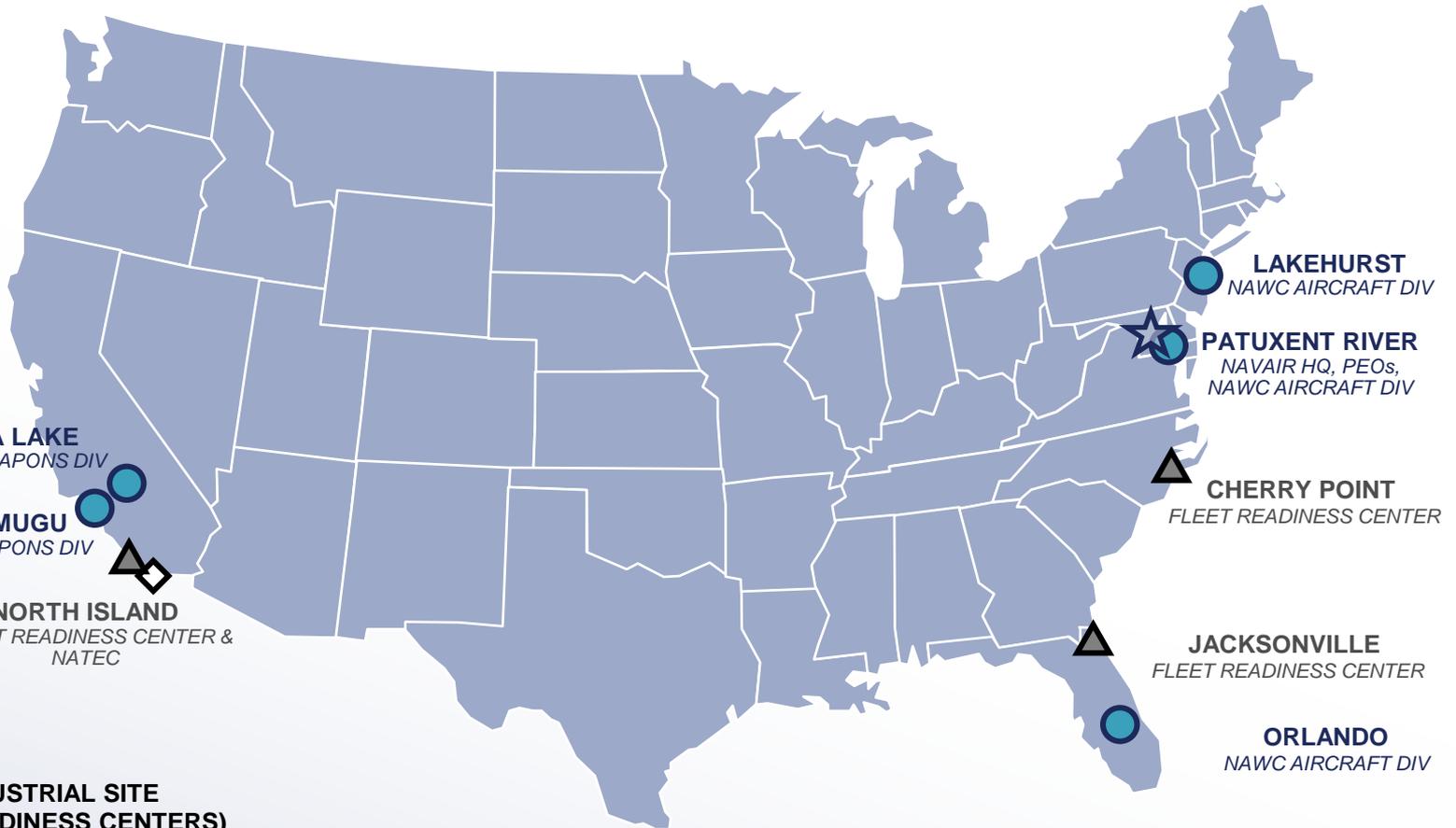
- 2.3 DIVISION HEADS
- 2.3.1 PRES. HELO/H-1/H-53
  - 2.3.2 MARITIME SURV.
  - 2.3.3 V-22 OSPREY
  - 2.3.4 MULTI-MISSION H-60
  - 2.3.5 MULTI-MISSION A/C SUPP

- 2.4 DIVISION HEADS
- 2.4.1 CRUISE MISSILES
  - 2.4.2 MULTI-MISS PLTFM SUPP
  - 2.4.4 PREC STRIKE WEPS/ UNMANNED AV PROG

- 2.5 DIVISION HEADS
- 2.5.1 AD-PAX
  - 2.5.2 AD-LAKEHURST
  - 2.5.3 TRAINING SYSTEMS- ORLANDO
  - 2.5.4 CHINA LAKE/PT MUGU



# Major Locations



-  **NAVAIR HQ**
-  **DEPOT/INDUSTRIAL SITE (FLEET READINESS CENTERS)**
-  **NAVAL AIR WARFARE CENTER**
-  **LOGISTIC SUPPORT ACTIVITY**

 **ATSUGI, JAPAN**  
FLEET READINESS CENTER



# NAWCAD Contracts



***Executing Contracting Actions supporting DoD's mission through increased competition & reducing costs while providing quality products, services, & solutions supporting the Fleet:***

- Address acquisition strategy elements unique to specific requirements
- Enhance understanding of requirements early and develop opportunities to foster competitive environments
  - Use of Industry Days and early communication on new requirements as appropriate
- Match appropriate Contract Type (i.e. Cost type, FFP, IDIQ) to each requirement
- Maintain Open Communication
  - Share ideas for improvements, ensure optimal competitive opportunities



# NAWCAD CONTRACTS AIR-2.5.1 (Patuxent River)

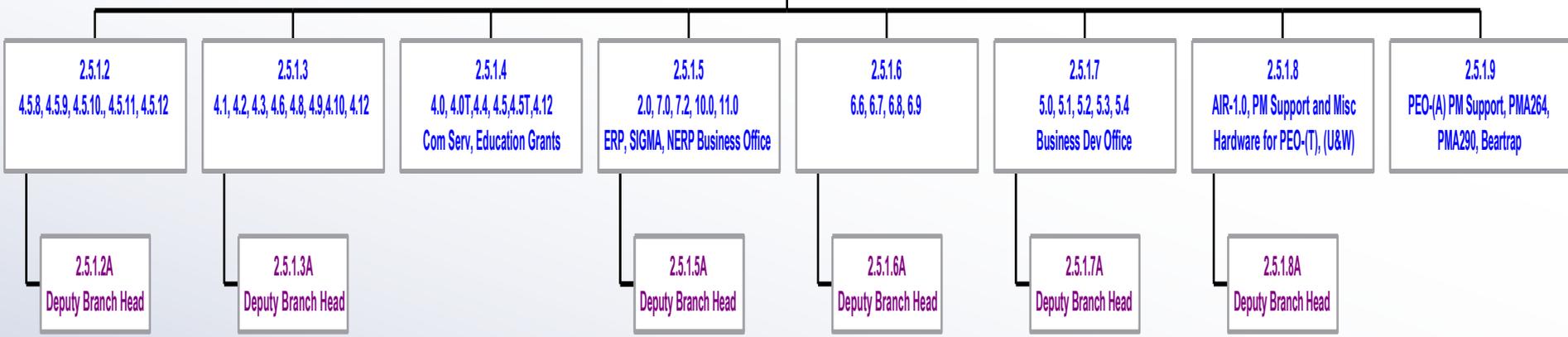


2.5.1  
Chief of the Contracts Office (CCO)  
Division Head

2.5.1A  
Military Deputy Division Head

2.5.1B  
Deputy Division Head

2.5.1.1  
Rapid Action Center





# Finding Opportunities



## ***NAWC AD Contracts continuously explores opportunities to enhance competition***

- Utilizing Government Points of Entry (GPE)\* to announce new opportunities, upcoming events and solicitation announcements.
  - Improves access to acquisition information and enhances competition
  - GPE for actions over the micro-purchase threshold (\$3,000.00)
- FedBizOpps:  
<https://www.fbo.gov/index?s=main&tab=list&mode=list&creg=robect>
- NAVAIR Business Opportunities <http://www.navair.navy.mil/> (Under: “Doing Business”)
- NAVAIR Office of Small Business Programs\*:  
<http://www.navair.navy.mil/osbp/>

**Small Businesses Must Make Their Capabilities Known!**



# Questions



# Disclaimer



- **The information about to be presented affords industry partners in sight into on-going and pending acquisitions.**
- **Significant portions of the information are planning in nature and are subject to change throughout the acquisition planning and acquisition strategy approval process, and in response to Naval Air Systems Command, Deputy Assistant Secretary of the Navy (Acquisition, Technology and Logistics) and Defense Procurement Acquisition Policy peer reviews.**
- **The Procurement Contracting Officer is your source for the most current information.**



# Systems Engineering (4.1)



*Presented by:*

**Mr. Stu Young**

Director

Systems Engineering Department

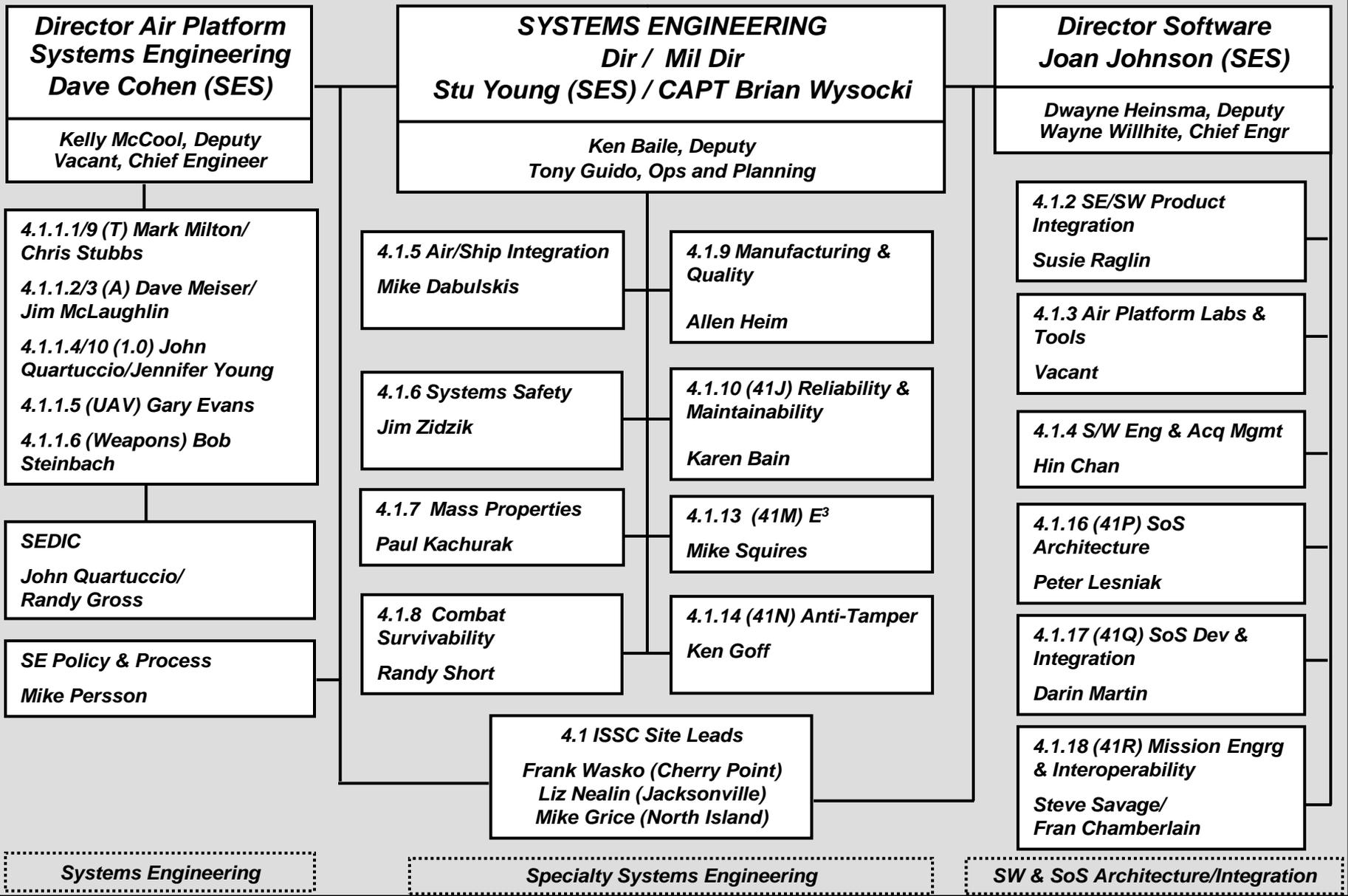
Air – 4.1

NAVAIR Public Release 2012-307

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# 4.1 Systems Engineering Organization





# AIR 4.1 Systems Engineering



## Vision

Naval Aviation systems will meet the needs and expectations of fleet users through rigorous application of Systems Engineering principles, and the people and processes of AIR-4.1's broad range of technical disciplines will enable Program Managers to better balance competing priorities of cost, performance, and schedule.

## Missions

### Conduct Air Platform Systems Engineering

*Directly support PEOs and PMs in managing requirements and lead technical activities of acquisition programs for Naval Aviation systems.*

Acquisition Documentation  
Requirements Management  
Early Systems Engineering MDD to MS B  
Developmental Planning MDD to MS A  
Lead Systems Integrators  
Technical Leadership/Platform CHENG  
System Engineering Design Reviews  
Systems Engineering Tools/Methods  
Platform In-Service Engineering Site Leads

### Execute Systems Level Engineering Functions

*Provide people and processes to ensure proper application of a broad range of specialized systems level engineering disciplines across the NAVAIR organization.*

Manufacturing and Quality  
System Safety  
Mass Properties  
Combat Survivability and Vulnerability  
Reliability and Maintainability  
Electromagnetic Effects  
Anti-Tamper  
Critical Safety Item Management  
Air/Ship Integration  
Systems Engineering Policy, Process, Training and Education

### Perform Software / Systems / SoS Integration

*Provide leadership and technical expertise for the acquisition, development, and sustainment of software for Naval Aviation's aircraft and weapons systems and Systems Integration Laboratories.*

Software Development / Integration  
Software Acquisition Management  
Software Support Activities  
Systems Integration Labs and Tools  
System of Systems Integration  
System of System Simulation  
Mission Systems Engineering and Architecture Development  
Systems Interoperability



# AIR 4.1 National \* Sites & Staffing \*



**Total Civilians: 1297**  
On-Board as of 31 January 2012

**Total CSS: 718**  
FY11 Work Years

**Total Military: 38**

**4.1 Total Workforce:  
2053**



# Software Integration



## Description/Summary of Program Requirements

Perform systems analysis, requirements development, software development, systems integration, testing, and fleet introduction and support of warfare systems into Naval Aircraft.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 3 years beginning in 2QFY13</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY12</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>2<sup>nd</sup> Qtr FY 13</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> Name: Jose Gutierrez Phone: 301-342-2274	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ L3 Comm</li> </ul>



# Systems Engineering Contract



## Description/Summary of Program Requirements

The contractor shall provide systems engineering functions to support the requirements of various projects and in support of NAVAIR PMA Activities.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 3 years beginning in 3QFY14</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY13</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY 14</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> Name: Valerie Walter Phone: 301-342-0172	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>  L-3 Systems, Inc



# Questions



# Air Vehicle (4.3)



*Presented by:*

**Mr. Tom Rudowsky**

Director,

Air Vehicle Engineering

Department (AIR-4.3)

NAVAIR Public Release 2012-336

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Air Vehicle Engineering Department



<b>Director AIR-4.3</b> Mr. Thomas Rudowsky, SES	<b>Military Director AIR-4.3</b> CAPT Todd Kruder
---	--

<b>4.3A</b> Deputy Director Mr. Michael Tribino	<b>4.3 D</b> Plans & Operations Ms. Nonie Creed	<b>4.3E</b> Senior Engineer Mr. Donald Polakovics	<b>4.3ST</b> Senior Scientist Dr. Bill Frazier	<b>4.3T</b> Technology Office Mr. Jerry Rubinsky
---	---	---	--	--

<b>4.3.1</b> AV Systems Engineering Division
Mr. Darrel Tenney
Deputy Division Head Mr. Roland Cochran

<b>4.3.2</b> Aeromechanics Division
Mr. Steve Donaldson
Senior Engineer Mr. James Denham
<b>4.3.2.1</b> Applied Aerodynamics & Store Separation
<b>4.3.2.2</b> Vehicle Performance Mr. Michael Thompson
<b>4.3.2.3</b> Modeling & Simulation Alex Kokolios
<b>4.3.2.4</b> Flight Dynamics Mr. Steve Hynes
<b>4.3.2.6</b> Vehicle Flight Controls Mr. Richard Dudash

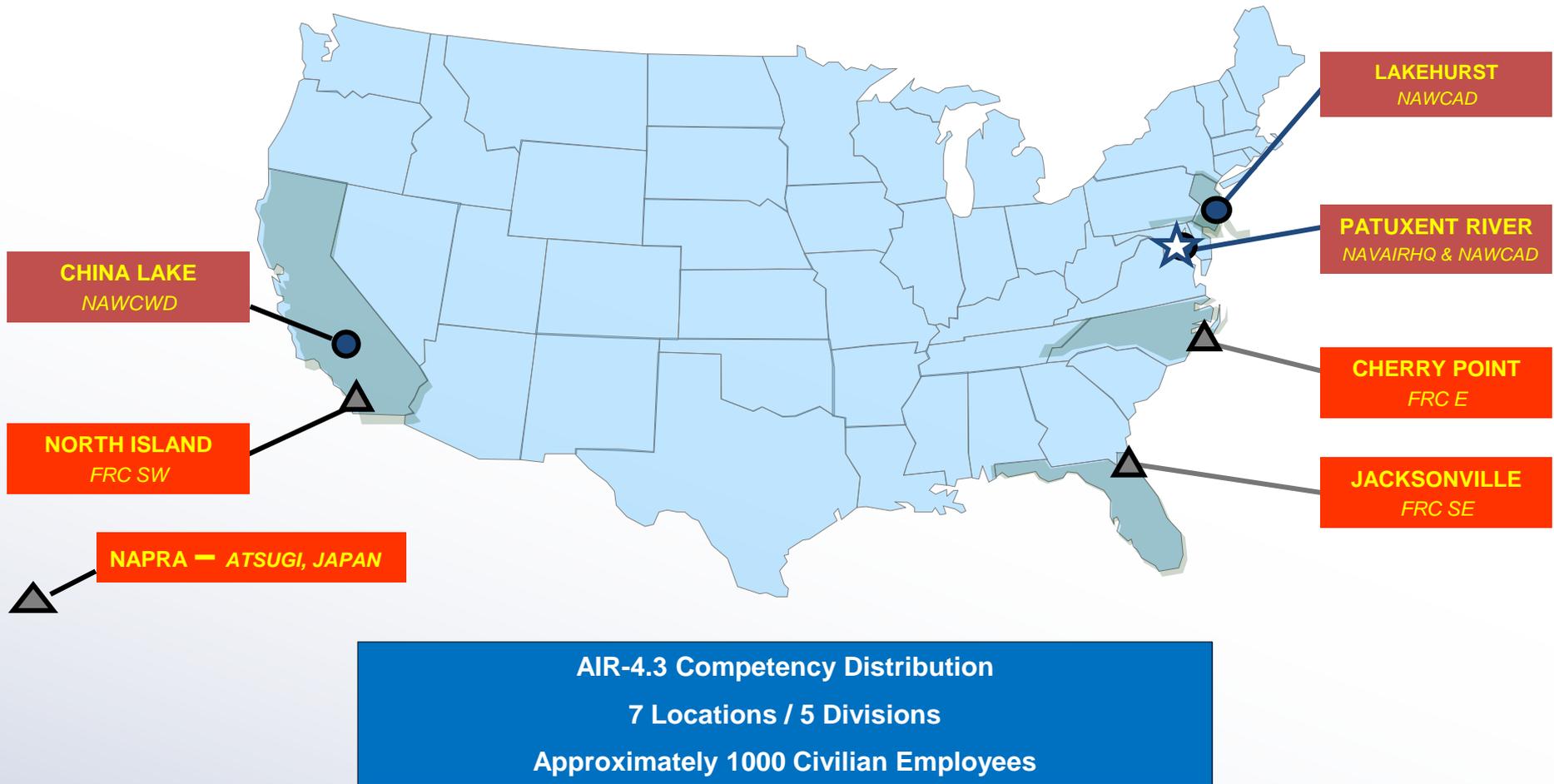
<b>4.3.3</b> Structures Division
Mr. Barry Sturgis
Senior Engineer Mr. Ade Ragghianti
<b>4.3.3.1</b> Tactical A/C Strength Mr. Richard Ryan
<b>4.3.3.2</b> Patrol & RW A/C Strength Mr. Nam Phan
<b>4.3.3.3</b> Loads & Dynamics Mr. Robert Hay
<b>4.3.3.4</b> Structural Life Surveillance Mr. Mark Thomas
<b>4.3.3.5</b> Advanced Structures Technology Mr. Dave Eby

<b>4.3.4</b> Materials Engineering Division
Mr. John Yadon
NAWCAD Division Mr. Rob Kowalik
Senior Engineer Mr. Craig Matzdorf
<b>4.3.4.1</b> Metals & Ceramics Mr. Robert Overby
<b>4.3.4.2</b> Ind & Operational Chemicals Mr. Kevin Kovaleski
<b>4.3.4.3</b> Non-Destructive Investigation Mr. Fred Lancaster
<b>4.3.4.4</b> Polymers & Composites Mr. Stan Ng
<b>4.3.4.5</b> Analytical Chemistry & Test Mr. Stan Ng
<b>4.3.4.6</b> Corrosion & Wear BR Mr. Fred Lancaster

<b>4.3.5</b> Subsystems Division
Mr. Steve Thoman
Deputy Div Head Ms. Cynthia Hurla
Senior Engineer Mr. Tom Gilmour
<b>4.3.5.1</b> Thermal Management Mr. John Krohn
<b>4.3.5.2</b> Hydraulics & Pneumatics Mr. Al Pate
<b>4.3.5.3</b> Fuel Containment Mr. Joe Dolinar
<b>4.3.5.4</b> Mechanical Systems Mr. Dave Dolezel
<b>4.3.5.5</b> Landing Gear Systems Mr. Al Pate



# Air Vehicle Engineering National Competency





# Air Vehicle Engineering Specialties





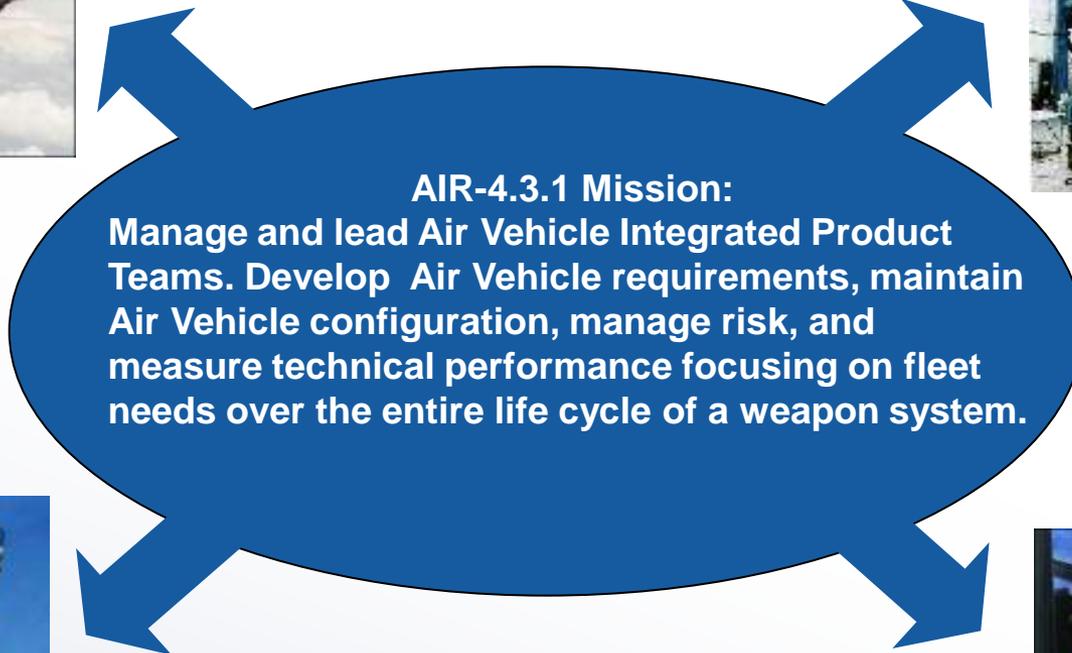
# Air Vehicle Systems Engineering Division (AIR-4.3.1)



## Aeromechanics (AIR-4.3.2)



## Structures (AIR-4.3.3)



**AIR-4.3.1 Mission:**  
Manage and lead Air Vehicle Integrated Product Teams. Develop Air Vehicle requirements, maintain Air Vehicle configuration, manage risk, and measure technical performance focusing on fleet needs over the entire life cycle of a weapon system.



## Subsystems (AIR-4.3.5)

**Goal:**  
To achieve an integrated, balanced Air Vehicle system solution that meets cost, schedule, and performance objectives





# Aeromechanics (AIR-4.3.2)

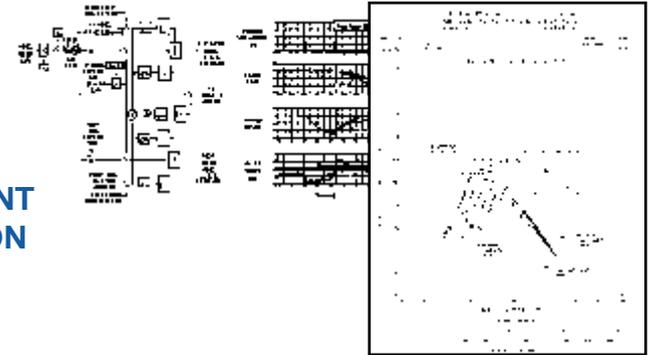


## Flight Test



FLIGHT TEST PLANNING  
DATA / ANALYSIS VALIDATION  
RISK REDUCTION

## Analysis



AIR WORTHINESS ASSESSMENT  
FLIGHT ENVELOPE EXPANSION  
FLEET SUPPORT

NATOPS DEVELOPMENT  
CONTROL LAW DEVELOPMENT  
SPEC COMPLIANCE / GUIDANCE  
TACTICAL UTILITY ASSESSMENT

### Aeromechanic Interface

PRE-FLIGHT TEST PREDICTIONS  
DATA BASE DEVELOPMENT  
MISHAP INVESTIGATIONS



## Simulation



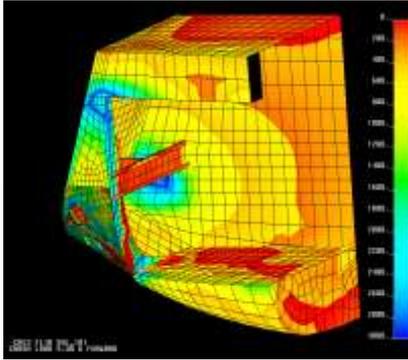
## Wind Tunnel Testing



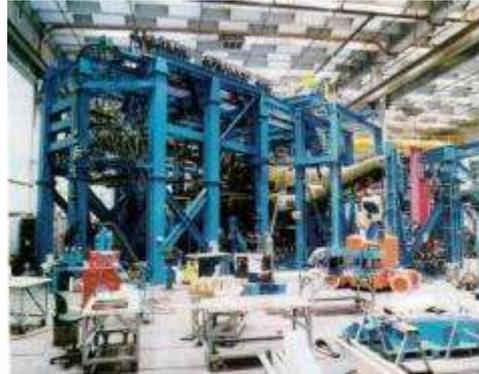
# Structures (AIR-4.3.3)



**STRUCTURAL ANALYSIS**



**STRUCTURAL TESTING SUPPORT**



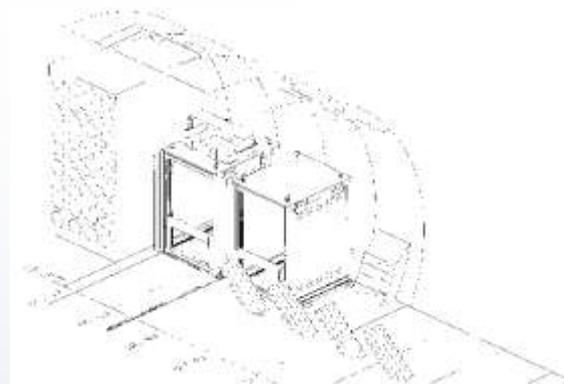
**ESTABLISH STRUCTURAL DESIGN CRITERIA**



**AIRCRAFT STRUCTURAL LIFE SURVEILLANCE**



**STRUCTURAL DESIGN EVALUATIONS**



**IN-SERVICE ENGINEERING SUPPORT**



**DEVELOP TECHNOLOGY FOR ADVANCED STRUCTURES**



**AIR WORTHINESS ASSESSMENT**





# Materials Engineering (AIR-4.3.4)



## MATERIALS SCIENCE AND TECHNOLOGY

6.1 - 6.4  
SBIRS/ILIR  
Manufacturing Technology  
SERDP/W2210 Pollution  
Prevention

Metals & Ceramics  
Propulsion Materials  
Avionics  
Corrosion Technology/  
Materials Protection  
Advanced Polymers  
& Composites  
Functional Materials  
Nondestructive Evaluation



## ACQUISITION SUPPORT/ RISK ASSESSMENT

Requirements Definition  
Source Selection  
IDR/PDR/CDR  
Materials & Processes  
Specifications/CDRLs  
Design Allowables  
Technology Transition  
Materials & Processes  
Certification  
Award Fee  
Performance Monitor  
Repair Development  
MIL-Handbooks/  
Specifications

## FLEET SUPPORT/AIRCRAFT MAINTENANCE

Environmental Compliance  
HAZMAT Minimization  
Aging Aircraft Initiatives  
Maintenance & Repair  
Technologies  
Failure Analysis

Corrosion Prevention  
Composite Repair  
Operational Chemicals  
Maintenance Manuals  
Materials Deterioration Program  
Mishap Investigation



# Subsystems (AIR-4.3.5)



Mechanisms



Airframe Bearings



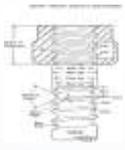
Internal Cargo



Transparencies



Emergency Egress Lighting



Fasteners



External Cargo



Reservoirs



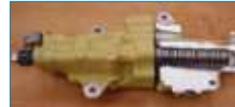
Tubing runs



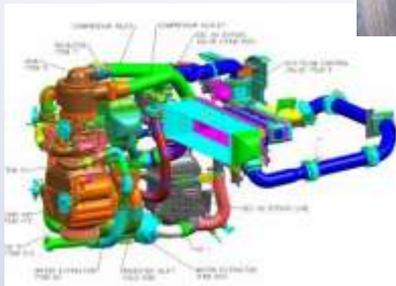
Accumulators



F-18 Pumps



Switching Valves



## FIRE PROTECTION

Prevention, Containment, Detection, Suppression

## ECS

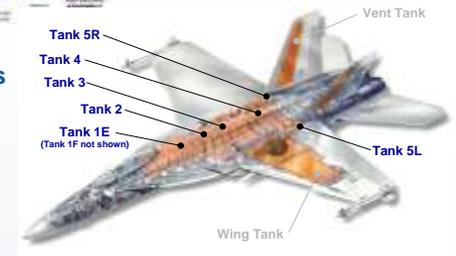
Cooling and Pressurization for Crew and Avionics

## ICE PROTECTION

Detection and Management of Ice Accretion



Aerial Refueling Stores



Internal Fuel Tanks



# Long Range Forecast



# NAWCAD Air Vehicle Engineering Technical Support



Full spectrum engineering and technical support in development, characterization, and testing of naval aircraft.

- Air Vehicle Systems
- Aerodynamics
- Structural Integrity and Durability
- Materials Engineering

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>▪ Small Business Set Aside</li> </ul>	<ul style="list-style-type: none"> <li>▪ Base + 2 1-year options Beginning 2QFY13</li> </ul>	2nd Qtr FY12  RFP Release	2 <sup>nd</sup> Qtr FY 13  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
<ul style="list-style-type: none"> <li>▪ Robert Kowalik</li> <li>▪ 301-342-8010</li> </ul>	<ul style="list-style-type: none"> <li>▪ \$20M</li> </ul>	<ul style="list-style-type: none"> <li>▪ NAVMAR</li> </ul>	



# NAWCAD Structures Division Technical Support Aircraft Structural Life Surveillance



Engineering and technical services supporting aircraft structural life analysis and management, airframe strength analysis, and flight and ground loads analysis. Majority of the work is in support of the Structural Appraisal of Fatigue Effects (SAFE) project.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>						
<ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<ul style="list-style-type: none"> <li>▪ Base + 2 1-year options Beginning 2<sup>nd</sup> Q FY14</li> </ul>	<table style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">3<sup>rd</sup> Qtr FY13</td> <td style="width: 50%;">2<sup>nd</sup> Qtr FY 14</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>RFP Release</td> <td>Contract Award</td> </tr> </table>	3 <sup>rd</sup> Qtr FY13	2 <sup>nd</sup> Qtr FY 14			RFP Release	Contract Award
3 <sup>rd</sup> Qtr FY13	2 <sup>nd</sup> Qtr FY 14							
								
RFP Release	Contract Award							
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>						
<ul style="list-style-type: none"> <li>▪ Mark Thomas</li> <li>▪ 301-342-9352</li> </ul>	<ul style="list-style-type: none"> <li>▪ \$30M and Over</li> </ul>	<ul style="list-style-type: none"> <li>▪ L-3 Communications</li> </ul>						



# 4.3 Partnership Opportunities



- Patents available for Commercialization
  - *Trivalent Chromium Pretreatment/Processes (TCP) (7 US patents, 4 pending)*
  - *Navguard- corrosion preventive (2 US patents)*
  - *Navclean- corrosion-inhibiting mildew cleaner (3 US patents)*
  - *Navsolve- degreasing solvent (1 US patent)*
- Examples of Industry Use of Laboratories and Test Facilities
  - *Materials- Application and Testing of materials and processes (Paint lab, Inorganic Coatings lab, NDI lab, Composites lab, Salt Fog lab, Operational Chemicals lab)*
  - *Aerodynamics- Advanced Computational Fluid Dynamics (CFD) Modeling and Simulation Capability (Air Wake Analysis, Weapon Separation, Stability & Control & Performance)*
- Examples of Cooperative Research and Development Agreements
  - *Limited Purpose CRADAs (LP-CRADAs) Provides product samples to potential licensees*
- Examples of Commercial Service Agreements
  - *Weapon Separation Analysis for LITENING pod on F-18*
  - *Prediction/Analysis of ship airwake for Joint High Speed Vessel (JHSV)*
- Other Areas of Interest for Collaboration
  - *3 patents pending for new materials technologies*
  - *Other new technologies where company and Navy have common interest*
    - *Materials Protection, Composites and Adhesive Bonding, Metals/New Alloys*



# Questions



# Propulsion and Power (4.4)



*Presented by:*

**Mr. Tony Cifone**

Head

Propulsion & Power Engineering  
Department

NAVAIR Public Release 2012-308

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# PRODUCTS



Propulsion & Power Systems Engineering

Air-breathing Engines

Engine Components & Performance

Control Systems

Gearboxes & Drive Systems

Propellers

Prognostics & Diagnostics

Auxiliary Power Units (APUs) & Starters

Electrical Power Systems

Wiring

Aircraft Fuel Systems

Fuels & Lubricants (Aviation & Ship)

Ground Test Methods & Facilities





# ELECTRICAL SYSTEMS LAB - MISSION AREAS



## Power Quality Lab

- MIL-STD-704 A-F unique capability
- 180 kVA programmable power supplies
  - Steady state & transient
- Distortion
  - Discreet Harmonic & Total Harmonic
- MIL-STD-1275 Ground Vehicle Power
- Avionics box level and system level testing
- Electrical power system component testing



**Critical Facility supporting Safety of Flight Decisions**

## Dynamics Lab (Vibrations)

- Flight Clearance
- Component Improvement
- Qualification
- Life Extension
- Engineering Investigations
- MIL-STD-781 Reliability
- MIL-STD-810 Performance
- Sine & Random
- 160 g shock
- 5-2000Hz, 24,000 g-lbs
- -73C to 177C, 20% to 95% RH



**Replicates vibration environment for every Navy platform**

## Drive Stand Lab

- AC/DC Generator Systems
- Electric Engine Starters
- Starter/Generator Units
- Power conversion Components
- External Power Monitors
- Batteries
- Power Management Systems
- Helicopter Drive Components
- F/A-18 AMAD
- 50 HP to 1000 HP



**Critical for high power Generator Development Programs**



# ELECTRICAL SYSTEMS LAB - MISSION AREAS



## Mobile Test Labs



- Chevrolet 7500 Series Mobile Test Van
- Ford F-550 Series Mobile Test Van
- Portable Data Acquisition Systems
- Test up to 4 Power Generation Systems Simultaneously
- Entire Airframe Power Injection at the Ground Plug

**Determines Power Quality variations on Equipment Suitability for flight operations**

## Battery Lab



- Charge to 54kW
- Discharge to 48 kW
- Flight Test Support
- Simulate Aircraft Systems
- Fleet Service Issues
- Military Standard Specification Testing
- Fleet Investigation for Failures
- Troubleshoot/Test New Prototypes

**Every Battery in flight and on the ground is tested**

## Environmental Test Lab



- Temperature/Altitude
  - 70C to +177C
  - Sea Level to 100,000 Feet
  - Ramp rate up to 10C/min
- Humidity
  - 20% to 95% Relative Humidity
- Walk-in-Chamber
  - 7FT x 7FT x 7FT
  - 300 HP Integrated Drive Head
- Wind Tunnel
  - 3 FT Diameter Test Area
  - 230 Knots Velocity
- Sand & Dust
  - MIL-STD-810, Method 510
- Solar Radiation
  - Infrared
  - Full solar Spectrum
- Salt Fog/Spray
  - MIL-STD-810, Method 509
  - Natural and Synthetic Sea Water

**All aircraft environments are able to be replicated**



# PROPULSION SYSTEM EVALUATION FACILITY (PSEF) - MISSION AREAS



## Rotor Spin Facility

- 4 Chambers, 110 in. Diameter
- Turbines and Compressors
- Low Cycle Fatigue
- High Cycle Fatigue
- Rotor Diagnostic Systems
- Burst and Over speed
- Failure Containment
- Rotor Stress Distributions
- Probabilistic Understanding
- Vibrations/Vibration Diagnostics

**Critical to continued safety of engine operations throughout the engine life cycle**

## Helicopter Drive System Test Facility

- Supports all Helo Platforms
- Main and Tail Rotor Loading
- Exhaust Emissions
- Endurance and Performance
- Full Drive Train Evaluations with Engines
- Diagnostic System Evaluations
- Engine and Drive System Integration
- Shafts & Couplings

**Ensures evolving mission requirements and extended life requirements can be achieved**

## Fuels and Lubricants Testing

- Supports Air and Sea Products
- Petroleum and Bio Fuels
- 17 Specialized Test Rigs
- Bearing and Gear Rigs for Lubricants
- Fuel Reaction to Heat
- Friction and Lubricity Measurements
- Low Pressure Storage
- Icing, Low Temperature Flow
- Filter/Separator Performance Coalescence
- High Temperature & Corrosion Inhibited Oils
- In-Line Fuel Quality System Evaluations

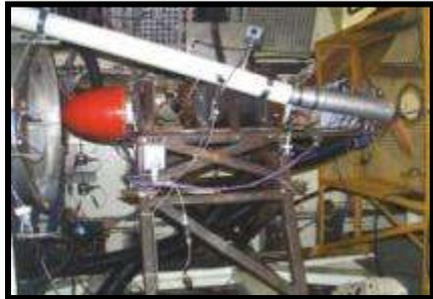
**Critical Facility supporting SECNAV's Energy Conservation and Sustainment Strategy**



# PSEF MISSION AREAS



## Altitude Environmental Chamber



- Test Piston Engines up to 400 HP
- Performance, Endurance and Operability Testing
- Focused on Heavy Fuel Engines
- UAV Engine Testing
  - Propeller and Dynamometer Loads
- Cold Soaks to -65°F
- Conditioned Air -65°F to 160°F
- Altitude Operation to 22,000 ft

**Expanding Requirement for small and mid size engines and longer missions require more robust systems**

## Small Engine Test Area



- Starter and APU Evaluations
- H-60 Test Cell with Hot Air
- UAV Engine Endurance Facility
- Life Extension Testing
- Unique Cell for Starters
- Fuel Cell Powered by Jet Fuel
  - 400 PSI, 1200°F, 3 pps
- 10,000 HP Loads

**Ensures long life of Helicopter engines and safe operations while meeting changing Mission reqm'ts**

## Aircraft Test & Evaluation Facility

### Uninstalled Testing

- JSF Flight Test Program Test Cell
- Endurance
- Functional Checks
- Flight Test Support
- Unique Configurations



### Integrated Testing

- Support of Flight Test Activities
- Weight and Balance
- Residual Fuel Calibrations
- X-Ray Inspections, Night Vision Testing
- Environmental Effects - Wind, Rain, Heat
- Installed Thrust
- Refuel In-Doors

**Critical part in safe operations of test and chase aircraft and their propulsion systems**



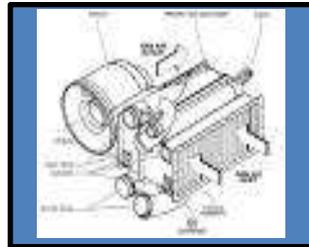
# Naval Power, Avionics & Thermal (NPATH) Lab Vision



## Electrical Power System



## Environmental Control System



## Fuel Management System



## Electric Actuation



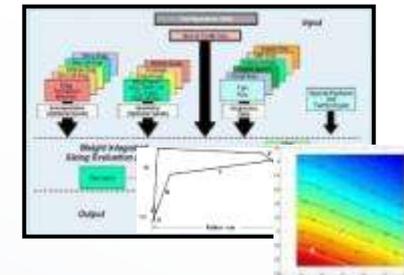
## Avionics



## Directed Energy Weapons



## Advanced Engines



## Modeling & Simulation

Integrated Hardware and Modeling/Simulation evaluation facility featuring an open architecture for Power & Thermal systems



# FY12 - LITHIUM-ION BATTERY TEST LAB FACILITY UPGRADE



Multiple procurements of equipment to update an existing facility for this testing, such as electrical power upgrade, ventilation systems and climate control systems.

- NAVFAC working to finalize design
- RFP solicitation expected in 3<sup>rd</sup> Quarter FY12

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 12 Months</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY12</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>4<sup>th</sup> Qtr FY12</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> Name: Mark Hurley Phone: 301-995-4559	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$142K</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ None</li> </ul>



# FY12 – FUEL CELL TEST LAB FACILITY UPGRADE



Multiple procurements of equipment to update an existing facility for this testing, such as electrical power upgrade, ventilation systems and climate control systems.

- NAVFAC working to finalize design
- RFP solicitation expected in 3<sup>rd</sup> Quarter FY12

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<ul style="list-style-type: none"> <li>▪ 12 Months</li> </ul>	3 <sup>rd</sup> Qtr FY12  RFP Release	4 <sup>th</sup> Qtr FY12  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
Name: Michael T. Allen Phone: 301-342-0868	<ul style="list-style-type: none"> <li>▪ \$193K</li> </ul>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	



# FY12-13 BIOFUEL BLENDING FACILITY



**Design and install a Biofuel Blending Facility utilizing several tanks and flow paths.**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition for Design</li> <li>▪ Full and Open Competition for Install</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 24 Months</li> </ul>	<b>Milestones</b> <table border="0"> <tr> <td>4Q FY11</td> <td>2Q FY 12</td> <td>1Q FY13</td> <td>2Q FY13</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RFP for Design</td> <td>Contract Award</td> <td>RFP for Install</td> <td>Contract Award</td> </tr> </table>	4Q FY11	2Q FY 12	1Q FY13	2Q FY13					RFP for Design	Contract Award	RFP for Install	Contract Award
4Q FY11	2Q FY 12	1Q FY13	2Q FY13											
														
RFP for Design	Contract Award	RFP for Install	Contract Award											
<b>Point of Contact</b>  Name: Chris Laing Phone: 301-757-3411	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$3,500K</li> </ul>	<b>Current Contract/Original Developer/OEM (if recomplete)</b> <ul style="list-style-type: none"> <li>▪ None</li> </ul>												



# FY13 - T63 TEST SYSTEM REPLACEMENT



Replace the water brake loading system with a regenerative system that will recover energy for the electrical grid. Includes an upgrade to the data acquisition and control systems.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
▪ Full and Open Competition	▪ 14 Months	1st Qtr FY13  RFP Release	2nd Qtr FY 13  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
Name: James McDonnell Phone: 301-757-3413	▪ \$1,576K	▪ None	



# FY13 - WIRING QUALIFIED PRODUCTS LIST (QPL) LAB UPGRADE



**Multiple small purchases of test equipment from various vendors to upgrade test capability in order to fully test updated specifications**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 7 Months</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>1<sup>st</sup> Qtr FY13</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>2<sup>nd</sup> Qtr FY 13</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> Name: Brenda Edwards Phone: 301-757-3591	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$355K</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ None</li> </ul>



# FY13 – ENVIRONMENTAL TEST FACILITIES



New chambers required to meet current specification test requirements

## SOLAR RADIATION CHAMBER

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>						
▪ Full and Open Competition	▪ 11 Months	<table border="0"> <tr> <td>1st Qtr FY13</td> <td>2nd Qtr FY 13</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>RFP Release</td> <td>Contract Award</td> </tr> </table>	1st Qtr FY13	2nd Qtr FY 13			RFP Release	Contract Award
1st Qtr FY13	2nd Qtr FY 13							
								
RFP Release	Contract Award							
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>						
Name: Michael Goodnow Phone: 301-342-0814	▪ \$315K	▪ None						

## HIGHLY ACCELERATED LIFE TEST (HALT) CHAMBER

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>						
▪ Full and Open Competition	▪ 11 Months	<table border="0"> <tr> <td>1st Qtr FY13</td> <td>2nd Qtr FY 13</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>RFP Release</td> <td>Contract Award</td> </tr> </table>	1st Qtr FY13	2nd Qtr FY 13			RFP Release	Contract Award
1st Qtr FY13	2nd Qtr FY 13							
								
RFP Release	Contract Award							
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>						
Name: Michael Goodnow Phone: 301-342-0814	▪ \$450K							



# FY14 - 270 VDC PULSED POWER NON-LINEAR LOAD BANK



**Purchase a 270 VDC pulsed power, non-linear load bank or procure components and build a load bank as part of NPATH Lab**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 13 months</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>1st Qtr FY14</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>4th Qtr FY14</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b>  Name: Michael Goodnow Phone: 301-342-0814	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$750K</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ None</li> </ul>



# FY14 - MAIN GEARBOX REPLACEMENTS



**Overhaul or replace three speed increasing gearboxes for the Drive Stand Lab**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 18 months</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <p>1<sup>st</sup> Qtr FY14</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY15</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> Name: Michael Goodnow Phone: 301-342-0814	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$1,275K</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ None</li> </ul>



# PARTNERSHIP OPPORTUNITIES



- Patents available for Commercialization
  - Silicon-Controlled Rectifier (SCR) tester for generator convertor units
    - Patent Application #13/053,769
    - Developed to improve fault isolation/troubleshooting of SCRs
  - Automated fault isolation of intermittent wiring tester
    - Patent Application #61/565,735;
    - Developed to improve detection capability for intermittent wiring faults within avionics subsystems.
- Commercial Service Agreements
  - Helicopter Drive System Facility
  - Altitude Environmental Chamber
  - Rotor Spin Facility
  - Generator Test Systems
  - Environmental Test Area
- Other Areas of Interest for Collaboration
  - Naval Power Avionics and Thermal (NPATH) Lab



# Questions



# Support Equipment and ALRE (4.8)



*Presented by:*

**Ms. Kathleen Donnelly**

Director

NAVAIR 4.8 ALRE& SE

Engineering

NAVAIR Public Release 2012-302

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# NAVAIR Lakehurst Overview



# Lakehurst History



**1915-1921**

**Ammunition Proving Ground Era**



**1921-1961**

**Lighter-Than-Air Era**



First Electromagnetic Land Based Flight  
NAVAIR Lakehurst  
Dec 18, 2010



**1961-1974**

**Cold War Anti-Submarine Warfare Era**



**1974-Present**

**Carrier Aviation Support Era**

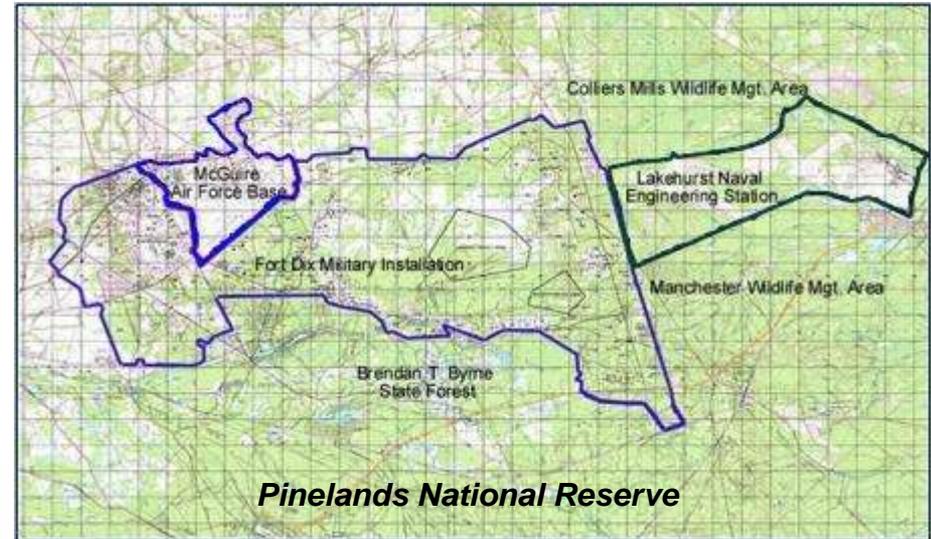


# Joint Base McGuire-Dix-Lakehurst



**BRAC 2005: Realign Naval Air Engineering Station Lakehurst to Joint Base McGuire-Dix-Lakehurst and transfer Installation Management functions to Air Force.**

- Only tri-service Joint Base of 12
- Active duty, Guard & Reserve missions
- 101,000 acres federal / state / local protected
  - 42,073 acres DOD
- 15.7M sf of facilities
- 5,689 military
- 4,831 civilians
- 7,821 transients (students, reserves)
- 6,316 dependents



- Unique world-class capabilities
- Restricted airspace
- Live-fire training ranges
- Secluded, secure spaces and runways
- Industrial & RDT&E facilities
- Air Refueling and Global Airlift
- Joint active, reserve and National Guard mobilization and training



## World leader in Aircraft Launch and Recovery Equipment (ALRE) and Support Equipment (SE)

### Unique Mission:

- Assure that fixed and vertical wing aircraft operate safely and effectively from aircraft carriers, air capable ships and expeditionary airfields worldwide



*From Take Off to Touchdown  
99.9999 reliable*



# NAVAIR 4.8 Products/Services



Provide Research and Development Support – SE & ALRE System of Systems



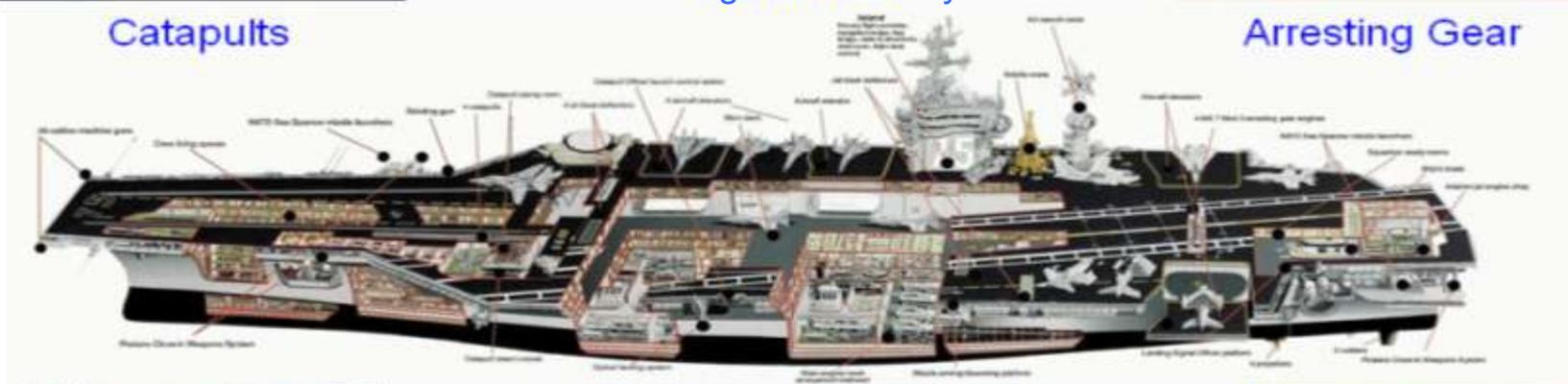
Catapults



Aviation Management Info Systems



Arresting Gear



Weapons Loader



Automated Test Equipment



Cranes



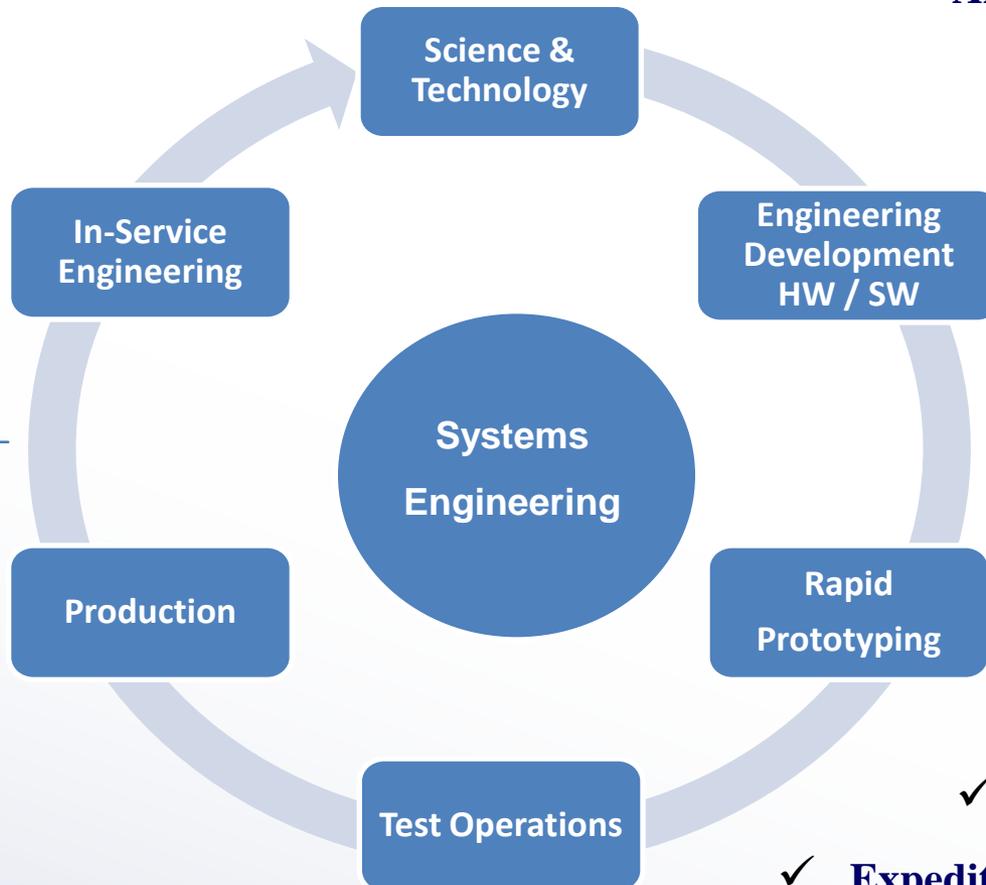
Visual Landing Aids



# The World's Only Continuous, Full Spectrum Life Cycle Support for SE and ALRE



- Program Management
- On-Site Fleet Reps
- Cost Analysis
- Contracts
- Logistics
- Materials
- System Safety



- ✓ Aircraft / Weapons / Ship Compatibility
- ✓ Visual Landing Aids
- ✓ Information Systems
- ✓ Recovery
- ✓ Launch
- ✓ Handling
- ✓ Servicing and Maintenance
- ✓ Advanced Diagnostics
- ✓ Expeditionary Airfield Systems

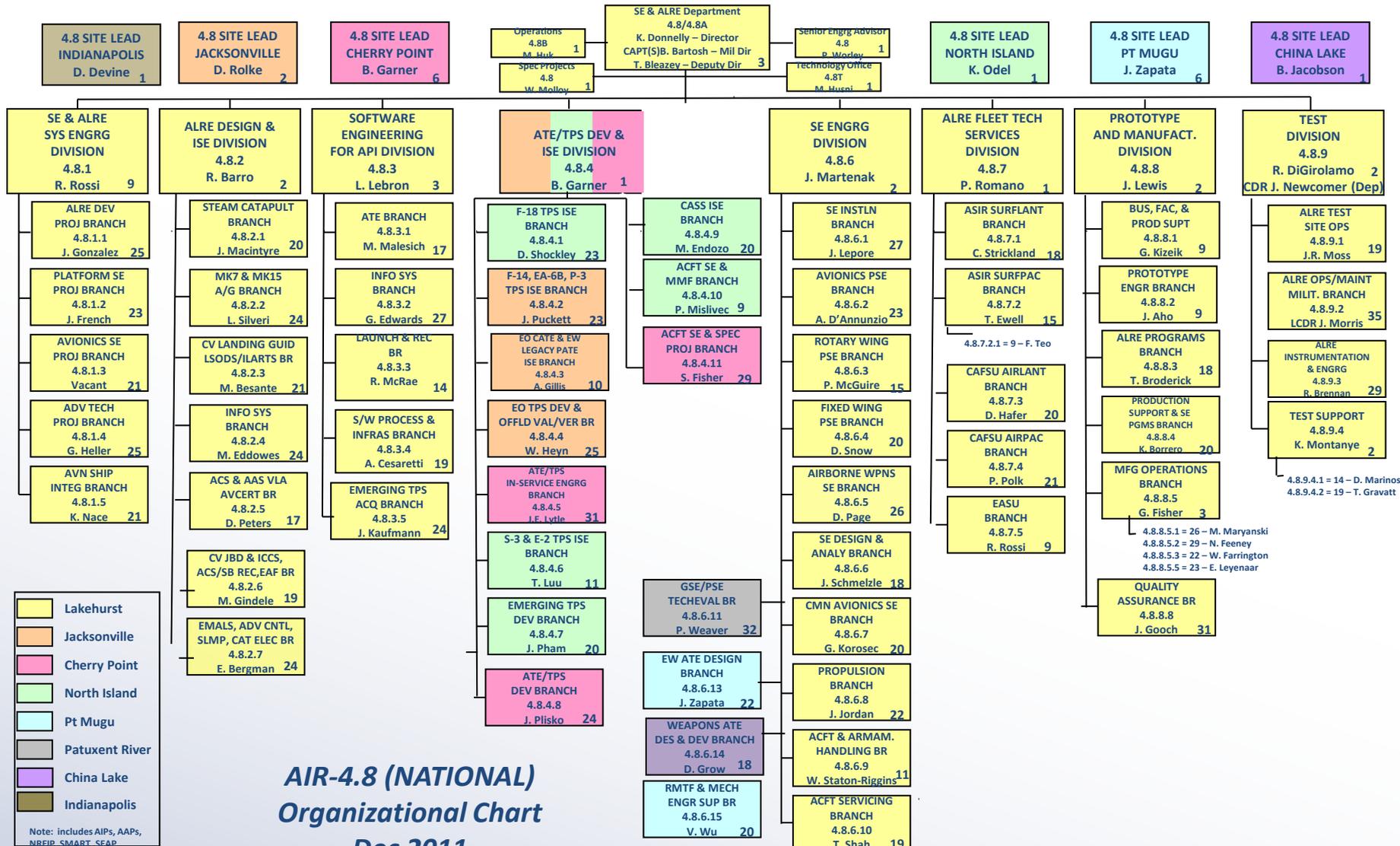




# 4.8 ALRE & SE Department



# 4.8 National Organization



**AIR-4.8 (NATIONAL)**  
**Organizational Chart**  
**Dec 2011**



# Aircraft Launch & Recovery Equipment



**Steam Catapults**



**Jet Car Test Site (JCTS)**



**Barricades**



**Improved Fresnel Lens Optical Landing Systems (IFLOLS)**



**Arresting Gear**



**Jet Blast Deflector (JBD)**





# Support Equipment



## Loading System (LALS)



## Cranes



## Air Conditioners



## F-18 Servo cylinder Test Station



## Jet Engine Test Instrumentation (JETI)





## 4.8 Core Technology Areas



Electromagnetics

Feedback Control

Sensors and Instrumentation

Networks/Displays

Lighting/VLA

Integrated Diagnostics

Intelligent Agents/Robotics

Condition-Based Maintenance

Data Mining



## 4.8 Areas of Expertise



SE & ALRE Systems Engineering

ALRE Engineering

Software Engineering

Test Program Sets (TPS)

Automated Test Equipment (ATE)

SE Engineering

ALRE Fleet Technical Services

Prototype & Manufacturing

Test



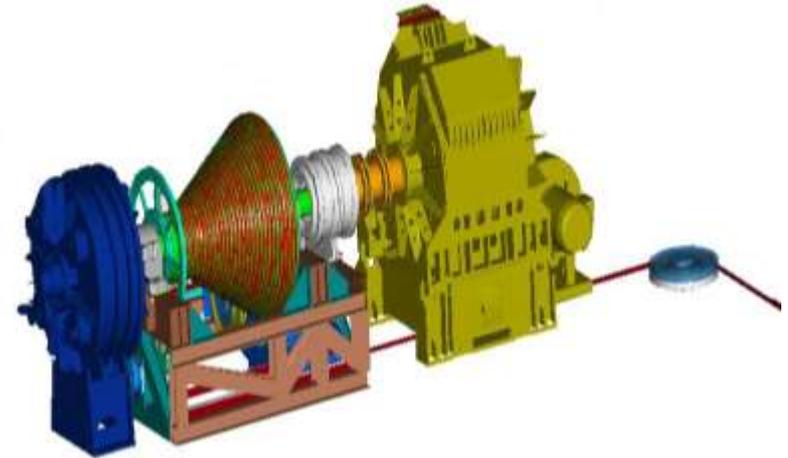
# 4.8 Key Programs



## EMALS



## Advanced Arresting Gear



## eCASS



## ADMACS





# Engineering - Laboratories



Wind  
Laser  
Photometric  
Electro-optics  
Aircraft Wiring  
Carrier Analysis  
CASS Laboratory  
Aviation Gold Disk  
Visual Landing Aids  
Environmental Test  
Cell Overhaul Facility  
Product Development  
Modeling & Simulation  
Robotics/Artificial Intelligence  
Integrated Support Environment (ISE)  
SE & ALRE Design Analysis Laboratory  
Integrated Diagnostics and Automated Test Systems  
Electromagnetic (Advanced Linear Motor Laboratory)  
Aviation Data Management & Control System (ADMACS)/ISIS  
Jet Engine Test Instrumentation/Shaft Engine Test Instrumentation  
Outdoor Engine Test Facility (Pax River)  
Support Equipment Mechanical Lab (Pax River)



# Manufacturing & Rapid Prototyping Capabilities



**NAVAIR Lakehurst's Prototype and Manufacturing Division is an essential resource for support of Naval aircraft and associated Aircraft Platform Interface missions.**

~ \$500M of Prototype and Manufacturing Infrastructure, Facilities, and Assets

## Lakehurst

- **Unique and Sole** manufacturer and Fleet provider of Cross Deck Pendants (CDPs) and Purchase Cable for USN, USAF, and EAF's.
- Designated Depot for ALRE Systems and Equipments
- Recognized Prototype and Rapid Response Facility for Naval Aviation
- 300,000+ ft<sup>2</sup> of shop & office floor space under 15 buildings over 6 acres
- 130+ Artisans along with 40+ engineers and support personnel
- 300+ conventional and Computer Numerically Controlled (CNC) lathes, mills, Water Jets, wire and heat treat furnaces.





# Unique ALRE Test Facilities/Capabilities

Elevated Fixed Platform  
RAST Helicopter recovery  
system



Runway Arrested Landing Site  
(RALS)  
Shipboard MK7 MOD 3/4 Arresting  
Gear

Advanced Arresting Gear  
(AAG) Test Sites

Shipboard water-  
cooled Jet Blast  
Deflector



Jet Car Tracks with  
Shipboard MK7  
Arresting Gear

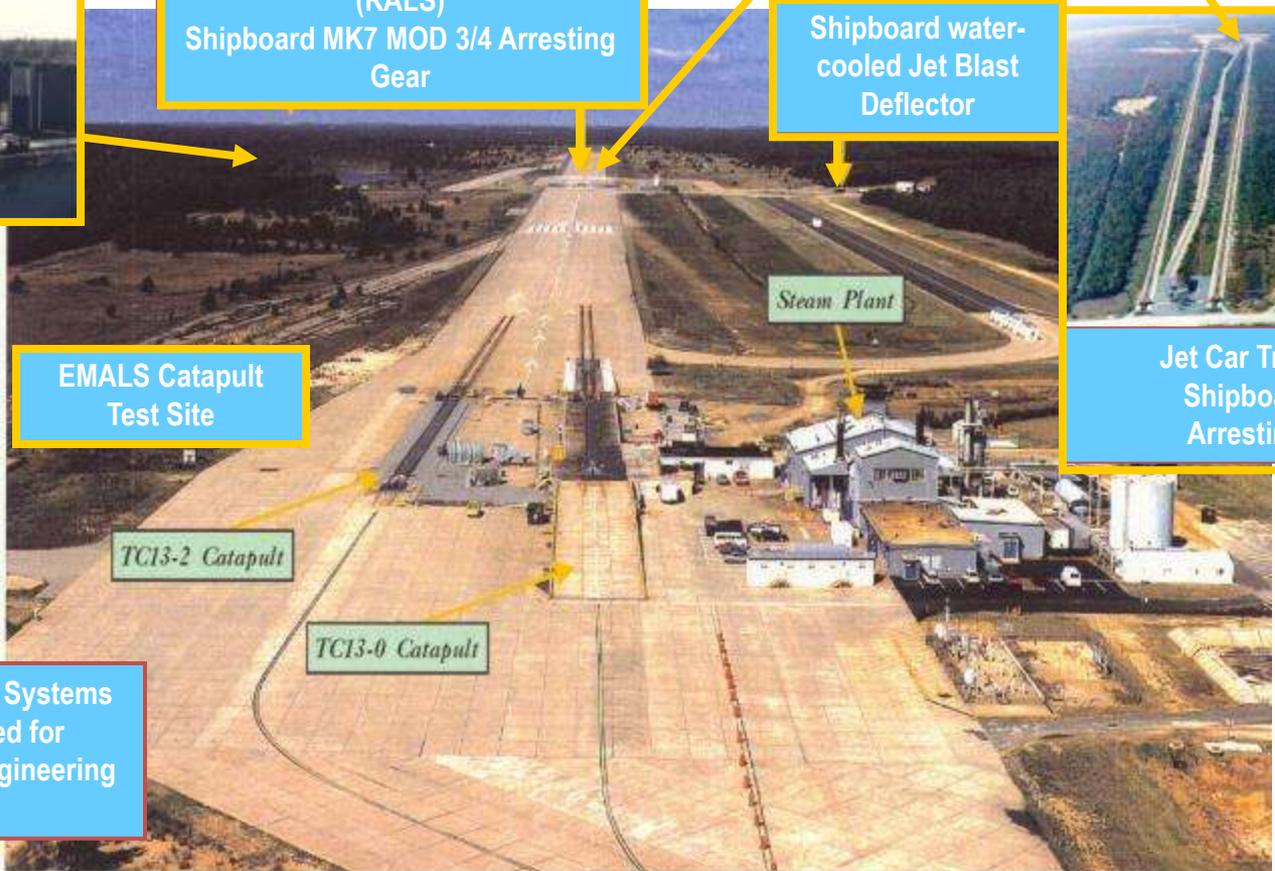
EMALS Catapult  
Test Site

TC13-2 Catapult

TC13-0 Catapult

Steam Plant

All Test Sites & Systems  
instrumented for  
collection of engineering  
data



Dedicated 12,000 ft. Runway

94-11-02G



# 4.8 World Wide Fleet Tech Support



## CAFSU East Offices

NOB Norfolk (1 rep)  
St Julien's Creek (11 reps)  
SUPSHIP Newport News (8 Reprs)  
NAS Mayport (2 reps)

## CAFSU West Offices

NAS North Island (10 Rep)  
Naval Ship Repair Facility Japan (2 reps)  
Puget Sound Naval Shipyard (8 reps)

## EASU Offices

MCAS Yuma EASU HQ (1 Rep)  
MCAGCC 29 Palms (2 Reprs)  
MCAS Iwakuni Japan (2 Rep)  
MCAS Yuma (1 Rep)  
MCAS Cherry Point (2 Reprs)  
MCAS Beaufort (1 Rep)

## ASIR East Offices:

CINCLANTFLT ASIR East HQ (1 Rep)  
NAS Norfolk (13 Reprs)  
NAS Mayport (4)

## ASIR West Offices

NOB Coronado ASIR West HQ (1 Rep)  
Naval Base San Diego (8 Reprs)  
Pearl Harbor Naval Base (3 Reprs)  
Naval Ship Repair Facility Japan (3 reps)  
Naval Station Everett (1 Rep)

**CAFSU:** Carrier And Field Service Unit

**EASU:** Expeditionary Airfield Service Unit

**ASIR:** Aeronautical Ship Installation  
Representative



# Contracts & Support



## SE/ALRE Alteration and Installation Support Services

Acquisition Strategy	Period of Performance	Milestones
<ul style="list-style-type: none"> <li>▪ Indefinite Delivery Indefinite Quantity (IDIQ)</li> <li>▪ Partial Small Business Set-Aside</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 years beginning in 4QFY13</li> </ul>	<p>3Q FY12 <span style="float: right;">4QFY13</span></p> <p style="text-align: center;"> <span style="float: right;"></span></p> <p style="text-align: center;">RFP <span style="float: right;">Contract Award</span></p>
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)
Joe Lepore 732-323-2978	<ul style="list-style-type: none"> <li>▪ \$50M Ceiling</li> </ul>	<p>Indefinite Delivery Indefinite Quantity (IDIQ) - 5 Contractors</p>

## SE/ALRE Engineering & Technical Services (Systems Engineering/ISE)

Acquisition Strategy	Period of Performance	Milestones
<ul style="list-style-type: none"> <li>▪ Full &amp; Open – SEAPORT</li> </ul>	<ul style="list-style-type: none"> <li>▪ 3 years beginning in 2QFY13</li> </ul>	<p>3Q FY12 <span style="float: right;">2QFY13</span></p> <p style="text-align: center;"> <span style="float: right;"></span></p> <p style="text-align: center;">RFP <span style="float: right;">Contract Award</span></p>
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)
James Gonzalez 732-323-1685	<ul style="list-style-type: none"> <li>▪ \$43M Ceiling</li> </ul>	<p>Consolidation of existing contracts</p>



# Contracts & Support



## SE Engineering & Technical Services (Servicing/Handling)

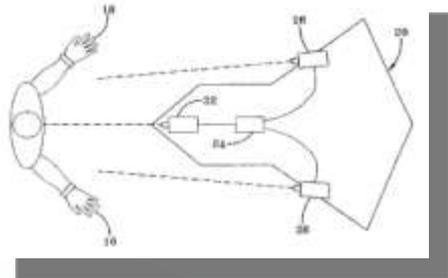
<b>Acquisition Strategy</b> <ul style="list-style-type: none"><li>▪ Full &amp; Open – SEAPORT</li></ul>	<b>Period of Performance</b> <ul style="list-style-type: none"><li>▪ 3 years beginning in 3QFY13</li></ul>	<b>Milestones</b> <p>4Q FY12 <span style="margin-left: 200px;">3QFY13</span></p> <p> <span style="margin-left: 200px;"></span></p> <p>RFP <span style="margin-left: 200px;">Contract Award</span></p>
<b>Point of Contact</b> <p>Paul McGuire 732-323-7571</p>	<b>Funding</b> <ul style="list-style-type: none"><li>▪ \$10M Ceiling</li></ul>	<b>Current Contract/Original Developer/OEM (if recompete)</b> <p>N00178-04-D-4027/4Y02</p>



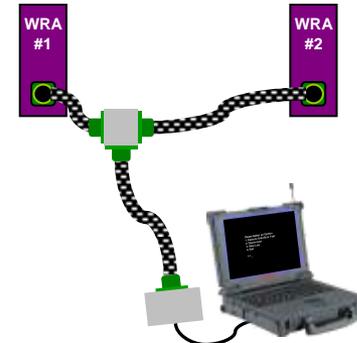
# Partnership Opportunities



## Patents available for Commercialization



➤ **Gesture recognition apparatus and method & Robotic gesture recognition system - Larry Venetsky**



➤ **System for isolating faults between electrical equipment - Russ Shannon**



➤ **Adjustable liquid atomization nozzle, Spray array apparatus, Liquid atomizing nozzle - Joe Wolfe**



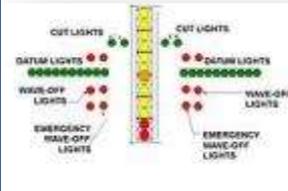
➤ **Just in time wiring information system - Gail Edwards**



# Partnership Opportunities



**TECHNICAL ASSISTANCE AGREEMENT**  
Technical assistance with a French Company leading the retrofit integration of the Navy's IFLOLS into the *Charles de Gaulle*



**“LIMITED PURPOSE”  
COLLABORATIVE RESEARCH &  
DEVELOPMENT AGREEMENT**

Providing interested companies temporary use (Equipment Transfer) of our patented Liquid Atomizing Nozzle to conduct research, test and evaluation



**COMMERCIAL SERVICE AGREEMENT**  
Manufacture and integration of Stores Management Subassembly Test Sets for the S-70 Helicopter program



**COLLABORATIVE RESEARCH &  
DEVELOPMENT AGREEMENT**

Assess and evaluate operational capabilities of patented Fine Water Mist nozzle technologies for a bus engine fire protection system



# Questions



# Lunch



# Human Systems (4.6)



*Presented by:*

**CAPT Scott Adley**

Military Director

Human Systems Department

AIR-4.6

NAVAIR Public Release 2012-297

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Contents



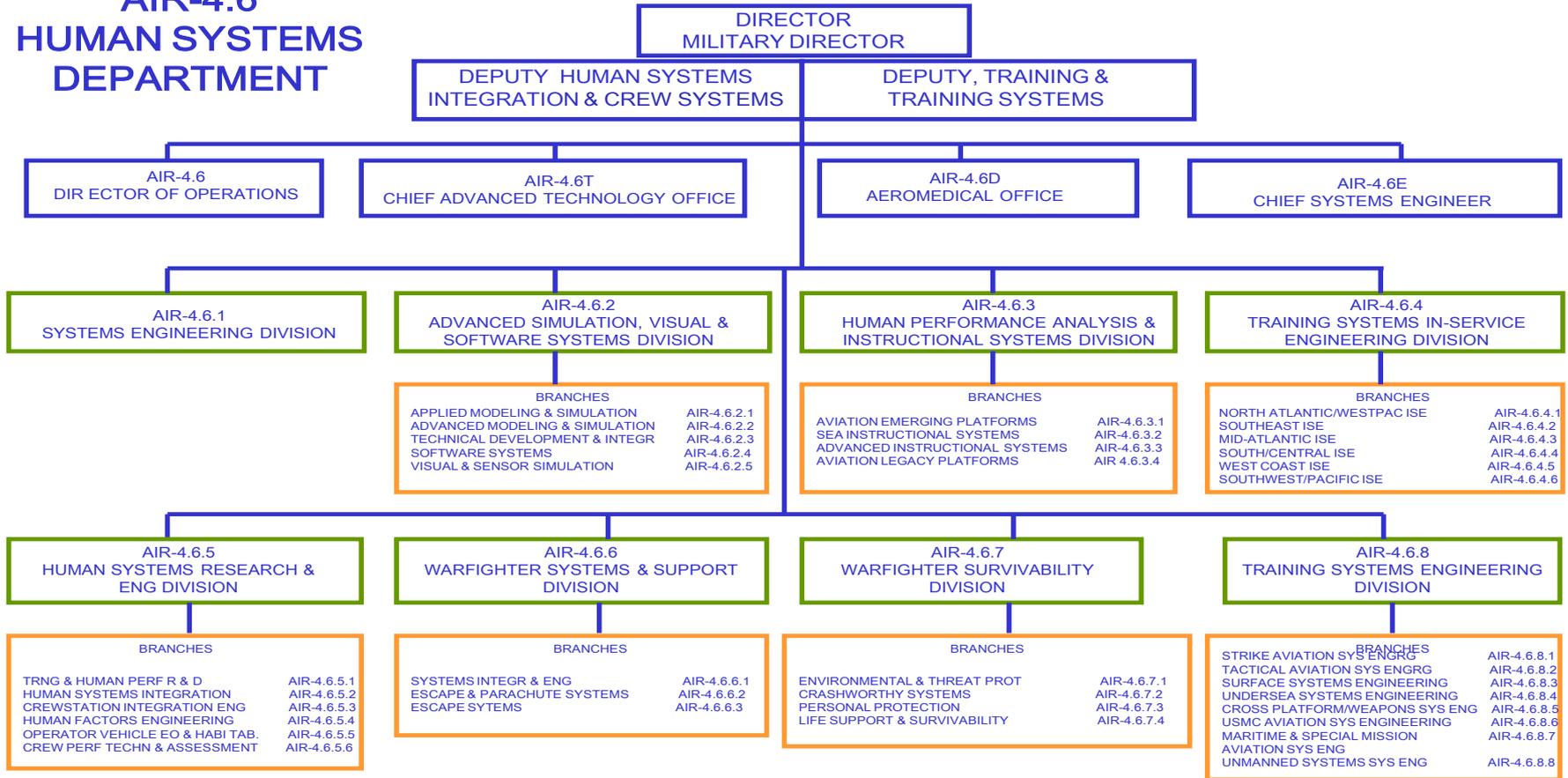
- Organization Position within NAVAIR
- Organization Structure
- Roles & Technology Focus
  - Historically
  - Presently
  - Future Directions
- Partnerships
  - Industry Use of 4.6 Laboratories & Facilities
  - 4.6 Patents & Cooperative Research and Development Agreements (CRADAs)
- Partnership Opportunities



# 4.6 Organization



## AIR-4.6 HUMAN SYSTEMS DEPARTMENT



Staff
Division
Branch



## 4.6 Department Roles & Technologies



- Human Systems Department Historically and Currently Focuses on the Brains and Intelligence of Aircraft Throughout the Fleet - **The Operator**
- Department's Traditional Support in Ensuring Operator Survival, Safety, Cockpit Design & Accommodation
- Noteworthy – 4.6 Exercises and Maintains a Close Partnership with Industry to Develop Aircraft and Aircrew Mounted Systems
  - NACES II Ejection Seat – Martin-Baker Aircraft Co., Buckinghamshire, UK
  - HGU-55, 56, 68, & 84 Head Protection – Gentex, Inc. Carbondale, PA



# Aircraft Mounted Systems



- **Navy Aircrew Common Ejection Seat (NACES)**

- Provides support and restraint in normal operations and the primary means of escape from a disabled aircraft
- Platforms Affected: F/A-18A++, F/A-18C+, F/A-18C/D (Lot 13+), F/A-18E/F, EA-18G, T-45A/C
- FRP since 1991 with over 2,400 seats delivered through September 2011
- IOC: 2QFY91



- **Non-Ejection Seat Endurance (NESE)**

- Increase aircrew endurance and mission effectiveness by providing improved pressure distribution and thermal management.
- Reduces level of crash attenuation injury risk.
- More affordable than legacy replacement cushions.
- Platforms Affected: CH/MH-53E, SH-60B/F, MH-60R, MV/CV-22B, AH-1W, C-2A, E-2C/D
- FRP Contract (H-53) Awarded May 2011, Assets on contract.
- IOC (H53): 3QFY12





# Aircrew Mounted Systems



**HGU-68 and HGU-84**



# Aircrew Mounted Systems



- **Multi-Climate Protection (MCP)**

- A modular protective clothing system providing flame protection, thermal protection, and sufficient insulation while reducing heat stress and bulk commonly associated with cold weather clothing systems.
- Components of the system used for a wide range of temperatures and climate conditions
- Platforms Affected: All
- Final Contract Awarded September 2010
- FOC: 2Q FY12



- **State-of-the-Art**

- Identify commercial off the shelf (COTS) and non-developmental items (NDIs) that will fulfill fleet needs with up to date/state-of-the-art technology.
- Streamlines the approval process for alternate items, optional items or mission specific items
- Platforms Affected: All
- No Contracts awarded
- Program redefinition and expansion 2Q FY12



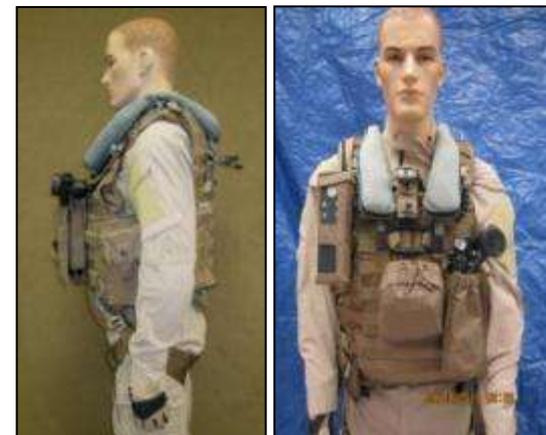


# Aircrew Mounted Systems



- **Aircrew Endurance Vest**

- Reduces weight & bulk for USN/USMC rotary wing aircrew.
- Reduces level of physical stress on rotary wing/tilt rotor aircrew up to 4 hours [T] 6 hours [O] without supplemental cooling.
- Improved Mobile Aircrew Restraint
- Platforms Affected: CH/MH-53E, H-60B/F/H/R/S, V-22, AH-1W
- FRP Contract Awarded September 2011
- IOC: 3Q FY12



- **Flight Deck Cranial**

- Replace current legacy hearing protection to reduce the user's jet engine noise overexposure.
- Will be worn by aircraft handlers and maintainers working in, on and around military aircraft while shipboard or ashore.
- Flight Deck Cranial restructured into 2 phase program to expedite fleet availability

Increment 1: Double Hearing Protection (DC2 & Argonaut) - LRIP on contract Sept 11

Increment 2: Triple Hearing Protection (Active Noise Reduction) & Cranial - ASR scheduled Nov 11, IOC targeted FY14

- Platforms Affected: All Aircraft deployed on CVN, LHD, LPD, LHA, & LSD
- LRIP Contract Awarded September 2011
- FRP: 2Q FY12





- **Joint Service Aircrew Mask Fixed Wing**

- Lightweight Chemical Biological Radiological protective mask providing Head-Eye-Respiratory (HER) protection
- Anti-G Protection
- F/A 18, F-35, AV-8B, EA-6B, C2, E-2C, P3, EP-3, C130, VP-3, C-9, C-12, C-20, C-26, C-37, C-40, V-22
- DT Ground will restart April 12



- **Joint Service Aircrew Mask Rotary Wing**

- Lightweight Chemical Biological Radiological protective mask providing Head-Eye-Respiratory (HER) protection
- Removable face plate
- H-53, H-60, AH-1, CH-46
- Contract for 400 PQT assets awarded Sept 2011
- MS C, LRIP Dec 2013





## 4.6 Department Roles & Technologies



- Department Intends on Maintaining Traditional Support Role in Life Support, Escape Systems, Head Protection
  - Continuation of Research & Development
    - Most Notably with such Programs as F-35 JSF, F/A-18
  - Fleet Support w/PMA-202



## 4.6 Department Roles & Technologies



- Focus Areas Expanded within the Past Two Decades
  - Emergence of Key Missions and Technologies Fostered Realignment 4.6 Support
    - Night Missions, Especially A/G Scenarios
    - Requirement for Off-Bore Site Cueing & Targeting for A/A and A/G Missions



# F-35 Helmet Mounted Display (Notional Image)





# Helmet Mounted Display



- HMD systems, combined with High Off-Boresight (HOBS) weapons, results in the ability for aircrew to attack and destroy nearly any target observed by the pilot
- HMD systems allow targets to be designated with minimal aircraft maneuvering, minimizing the time spent in the threat environment, and allowing greater lethality, survivability, and pilot situational awareness



# Helmet Mounted Display



## Capabilities

- Employs Pilot's Head Angle to Direct Air-to-Air & Air-to-Ground weapons seekers or other sensors (e.g., Radar, FLIR) to Target and actuating Controls via HOTAS
- Displays Targeting and Aircraft Performance Information (e.g. Airspeed, Altitude, Target Range, Weapon Seeker Status, G Conditions, etc.)
- Displays Sensor Video in Degraded Visual Conditions
- Integrated with Night Vision Imaging Device

AIR-4.6, Lockheed-Martin, Visual Systems International (VSI) Represent a Close Partnership in Integrating the VSI HMD into the F-35 Cockpit



## 4.6 Department Roles & Technologies



- Requirements for Advanced Display Systems a Game Changer for AIR-4.6
- 4.6 No Longer Along for the Ride
- 4.6 Now an Important & Vital Element of the Weapons System
- Recent Advance Display Suite Applications include:
  - C-130H Glass Cockpit Upgrade Effort
  - H-53 Cockpit Upgrade Effort
- F-35 Pilot Vehicle Interface Improvement Effort Pending Funding Approval



# C-130H Cockpit Upgrade





# C-130H Cockpit Upgrade





# H-53 Cockpit Upgrade





# F-35 Cockpit Mockup





## 4.6 Department Roles & Technologies



- AIR-4.6 Embraces the Future of Naval Aviation by Active Participation on and Support of NAVAIR's Unmanned Aerial Vehicle Programs
  - Broad Area Maritime Surveillance (BAMS)
  - MQ-8B Vertical Take-Off & Landing Tactical
  - Unmanned Aerial Vehicle (VTUAV) (Fire Scout )
  - X-47B Unmanned Combat Air System - Demonstration (UCAS-D)
  - Small Tactical Unmanned Aircraft System(STUAS)
  - Unmanned Carrier Launched Airborne Surveillance and Strike System (UCLASS)
  - Cargo Unmanned Aerial System
  - RQ-7B Shadow Weaponization Program



# Unmanned Combat Air System - Demonstration (UCAS-D)



- Uninhabited...Rather than Unmanned



- UCAS-D Requires Four (4) Personnel for Operation



# Fire Scout





# 4.6 Department Roles & Technologies



- AIR-4.6 Embraces the Future (cont.)
  - Primary Efforts Include, but not limited to:
    - Development Of Ground Control Station and Operating Interfaces
    - Development of Operating Environment (e.g. Shipboard, Land-based)
    - Design for Maintainability (DFM)



## 4.6 Department Roles & Technologies



- PMA-281 Currently Initiating Common Control Station (CCS) CONOPS Development Effort for the Following Applications as per RADM Shannon ACQUISITION DECISION MEMORANDUM (ADM), Dated 01 July 2011
  - UCLASS (Immediate Applicability)
  - Multi-Role Maritime UAS (Immediate Applicability)
  - BAMS UAS (CY 2018 Proposed Transition)
  - Fire Scout VTUAV (CY 2018 Proposed Transition)
  - Small Tactical UAS (Address Planned)
- CCS required to Control Multiple, Heterogeneous Vehicles



## 4.6 Department Roles & Technologies



- Human Systems Department Supporting Actively PMA-281 in CCS Development
- Human Systems Department Exclusively Exercises User Interface Technical Design & Training Authority
  - Control Station Design Requirements and Integration with Multiple Platforms will Drive Control System Development and Operability Complexity
  - 4.6 Authority Beyond CCS Effort
  - 4.6 Authority Extends to Operation and Applications of Aforementioned Platforms
  - 4.6 Authority Includes Air Worthiness Certification



# 4.6 Department Roles & Technologies





## 4.6 Department Roles & Technologies



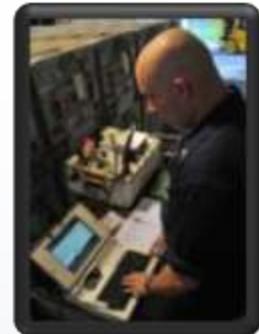
- AIR-4.6 has not forgotten the Maintainer!
  - Department Recently Developed a Laboratory Facility to Address Design for Maintainability Issues in Manned and Unmanned Aircraft Platforms
    - Capable of Support Programs of Record
    - Capable of Implementing and Conducting Research and Development



# Design for Maintainer Laboratory



- ◉ Manager: Dr. Gary Eiff
- ◉ Provides S&T, requirements verification & validation, and in-service support through analysis, modeling, simulation and solution development for DFM related issues
- ◉ Relevance:
  - ◉ Recently established in FY11, the DFM lab meets increasing demand from the PMAs/PEOs AIR4.1, AIR6.0 and the fleet. This core capability supports the Maintainer Advisory Panel and Design for Maintenance SWPs/Standard Engineering Processes
- ◉ Products:
  - ◉ DFM Augmented Reality
    - Maintainer Scanning and Detection Capability
    - Graphical IETM Interface
    - Corrosion Scanning and Detection Capability
  - ◉ 3D Modeling
  - ◉ Injury Prediction/Prevention
  - ◉ Small and/or Large Scale DFM Mockups
  - ◉ Maintenance Environment (Shipboard/Depot)
  - ◉ Improved Support Equipment (In-Service Prototyping)





# Partnership Opportunities



- Recent Patents Available for Commercialization
  - Quick Release Fitting – Patent No. 8,056,196
  - Fast Rope - Patent No. 7,954,410
  - Parachute opening and shock emulator - Patent No. 7,819,031
  - Radically Compressive Rope Assembly - Patent No. 7,568,418
  - Chest mounted armored microclimate conditions air device - Patent No. 6,105,382
  - Method and system for alerting aircrew to unsafe vibration levels - Patent No. 7,839,304



# Partnership Opportunities



- Recent Patents Available for Commercialization (cont.)
  - Global Visualization Process for Personal Computer Platforms - Patent No. 7,564,455
  - Modular Portable Air-Conditioning System - Patent No. 6,240,742
  - Aircrew integrated recovery survival vest - Patent No. 6,233,740



# Partnership Opportunities



- Industry Use of Laboratories and Test Facilities
  - Wind Blast Facility – Operator/HMD/Seat Integration
  - Ejection Seat Laboratory – Seat Harness Testing
  - Horizontal Accelerator – HMD Load Evaluation
  - Helmet Laboratory – HMD Weight & CG Evaluation
- Sample Cooperative Research and Development Agreement
  - Modular Portable Air Conditioning(MPAC) system



# Partnership Opportunities



- Other Areas of Interest for Collaboration
  - Development of UAS Common Control System Operator Interfaces to Enable Control of Multiple, Heterogeneous Vehicles within ISR and Battle-Ready Environments
  - Development of Operator Interfaces for UAS Control from a Manned Vehicle (e.g. Single-Seat, Multi-Seat Platforms) within Battle-Ready Environments



# Take-Aways



- 4.6 Will Maintain Traditional Business Base and Support to the Warfighter
  - Life Support Equipment
  - Pilot Flight Equipment
  - Escape Systems
  - Crash-Worthy Systems
- 4.6 Diversifying into Technology Areas Supporting the NAVAIRSYSCOM Strategic Initiatives & Investments - Unmanned Aerial Systems

4.6 Welcomes & Embraces Collaboration with Industry!



# Questions

**Thank You for Your  
Time and Attention**



# Avionics (4.5)



*Presented by:*

**Mr. Larry Hollingsworth**

National Director 4.5 Avionics

NAVAIR Public Release 2012-298  
Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Major Products



- **Acquisition Management**
  - Specifications
  - SE Plans/Schedules
  - Data Needs
  - Modeling/Analysis/Simulation
  - Technical Solutions
  - Contract/Effort Technical Requirements
  - Design/Development Evaluation, Direction & Oversight
- **Equipment Tests & Evaluation**
  - Equipment Tests / Suite Integration
  - Test Requirements & Readiness/ Data Analysis
- **Fabrication, Modification & Repair**
  - In-House Design, Prototyping, Fabrication & Repair
  - Installation & Integration in Aircraft, Ships & Mobile Platforms
  - Software Processing/Operating Algorithms
  - Quick Reaction Solutions
- **In-Service Support**
  - Engineering Investigations, Tech Solutions
  - Data for ECPs/RAMECs/TDs/Flight Restrictions
  - Obsolescence Management
  - On-site Training/Installation/Troubleshooting/Help
- **Technology Development**
  - Needs/Opportunities/Transition Readiness
  - Direction of Developments
  - In-House Development/Integration



# Areas of Expertise



- **Architecture & System Engineering**
  - ASW / Strike / AEW
  - Assault / UAV / etc00
- **Core Avionics**
  - Navigation/Altimeters/Crash Avoidance
  - Airborne Radios/IFF/ACLS
  - Cockpit Displays
- **Electronic Warfare Systems**
  - Self Protection/ESM / Decoys
  - Dispensers/Flares
- **Radar & Antenna Systems**
  - Airborne Radar/  
Auto Detection
  - Antennas
- **EO/Special Mission Sensors**
  - FLIR/Magnetic Sensors
  - Laser Sensors
- **Special Comm Requirements**
  - Special Communications Vans
  - Small Boat Comm's
  - C2 Networks
- **Information Warfare**
  - Mission Planning Systems
  - Targeting - Fire Control
  - Auto Target Recognition
- **Identification Systems**
  - Surface IFF Systems
- **Surface Systems**
  - Shipboard Antenna Systems
- **Airborne Electronic Attack**
  - High Power Jammers
- **Acoustic Systems**
  - ASW Acoustic Sensors and Systems
- **Integrated Comm & Info Systems**
  - Ship Communications
  - Data Links
  - IT Systems
- **Air Traffic Control Systems**
  - Surface Radars
  - ATC Control Systems/Centers
  - Ship, fixed site & Portable Systems



# Planned Procurements



# Summary of PGSS Requirements



**PGSS – Persistent Ground Surveillance System – A family of aerostat surveillance systems, developed, integrated and deployed in response to COMISAF’s urgent request for Persistent Surveillance for C-IED and Forward Operating Bases (FOB) Protection.**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ 5 Sole Source (SS)</li> <li>▪ 8 BOA Competitive</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 6 months SS beginning 2QFY12</li> <li>▪ 2 years beginning 3QFY12</li> </ul>	<b>Milestones</b> <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><u>RFP Release</u></td> <td style="border: none;"><u>Contract Award</u></td> </tr> <tr> <td style="border: none;">2QFY12</td> <td style="border: none;">2QFY12</td> </tr> <tr> <td style="border: none;">2QFY12</td> <td style="border: none;">3QFY12</td> </tr> </table>	<u>RFP Release</u>	<u>Contract Award</u>	2QFY12	2QFY12	2QFY12	3QFY12
<u>RFP Release</u>	<u>Contract Award</u>							
2QFY12	2QFY12							
2QFY12	3QFY12							
<b>Point of Contact</b> Name: Chyau N. Shen Phone: 301-342-0093	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$12M for all 5 SS</li> <li>▪ \$12M to \$85M for competitive</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> ACET; NEANY, Inc; MPRI; TASM 8 Competitive TBD						



# CNIT acquisition support for SOUTHCOM



The purpose of the effort is to provide acquisition support for SOUTHCOM.

Effort	ACQ Strategy	PoP	Milestones		Funding
SIMON (BOA)	Sole Source	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 RPF Release	2 <sup>nd</sup> Qtr FY12 Award	Est. \$12.5M
SIMON Information Assurance and Manuals	Sole Source	12mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 RPF Release	2 <sup>nd</sup> Qtr FY12 Award	Est. \$10K

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>Varies</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>Various</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Various Qtr FY12</p>  <p>Order Released</p> </div> <div style="text-align: center;"> <p>Various Qtr FY12</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> <p>Jim Rogers 301-995-3839</p>	<b>Funding</b> <ul style="list-style-type: none"> <li>Est. Varies</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>



# CNIT acquisition support for NIPO/DSCA



**The purpose of the effort is to provide acquisition support for the Navy International Programs Office (NIPO).**

Effort	ACQ Strategy	PoP	Milestones		Funding
CASA 235-300 Spare Parts, Training and FSR (BOA)	Sole Source	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 RFP Release	2 <sup>nd</sup> Qtr FY12 Award	Est. \$12.5M
Yemen CASA 235 Training & Spares	Sole Source	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$10.5M
CASA 235 Storage	Sole Source	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	2 <sup>nd</sup> Qtr FY12 Award	Est. \$2.4M
Malaysia procurement H4-P-LAK	Competitive	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$3.3M
Georgia procurement H4-P-GAA	Competitive	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$300K
Bangladesh Rappelling Item Procurement	Competitive	12mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$5M
Hungary ToughBook Procurement	Competitive	24mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 Order Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$5M
Special Defense Acquisition fund (DFAS)	Competitive	36mos beginning in 3QFY12	3 <sup>rd</sup> Qtr FY12 RFP Release	3 <sup>rd</sup> Qtr FY12 Award	Est. \$100M
CESSNA BOA	Sole Source	36mos beginning in 2QFY12	2 <sup>nd</sup> Qtr FY12 RFP Release	2 <sup>nd</sup> Qtr FY12 Award	Est. \$100M

Acquisition Strategy	Period of Performance	Milestones	
<ul style="list-style-type: none"> <li>Varies</li> </ul>	<ul style="list-style-type: none"> <li>Various</li> </ul>	Various Qtr FY12  Order Released	Various Qtr FY12  Contract Award
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)	
Kevin Holland 301-757-1176 Doug Wesley 301-342-8607 Michael "Doc" Holliday 301-342-8343	<ul style="list-style-type: none"> <li>Est. Varies</li> </ul>		



# CNIT acquisition support for SPAWAR SSC



The purpose of the effort is to provide FSR support for route clearance.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>Full and open competition</li> </ul>	<ul style="list-style-type: none"> <li>24 months beginning in 3QFY12</li> </ul>	3rd Qtr FY12  RFP Release	3rd Qtr FY12  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
James Rogers 301-995-3839	<ul style="list-style-type: none"> <li>Est. \$24M</li> </ul>		



# CNIT acquisition support for PMA-207



The purpose of the effort is to provide MHE to Kuwaiti government in support of host nation C-130 program.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>Full and open competition</li> </ul>	<ul style="list-style-type: none"> <li>15 months beginning in 3QFY12</li> </ul>	3rd Qtr FY12  RFP Release	3rd Qtr FY12  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
Michael "Doc" Holliday 301-342-3809	<ul style="list-style-type: none"> <li>Est. \$3.5M</li> </ul>		



# Mechanical Facilities Support



## Shipboard/Shore Based Mechanical Facilities Services in support of the Ship & Shore Based Electronic Systems (S&SBES), St. Inigoes, MD.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>▪ Small Business Set Aside</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 years beginning in 1QFY13</li> </ul>	3rd Qtr FY12  RFP Release	1 <sup>st</sup> /2nd Qtr FY13  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
301-995-8035	<ul style="list-style-type: none"> <li>▪ \$10 to \$50M</li> </ul>	<ul style="list-style-type: none"> <li>▪ N00178-05-D-4249 M802</li> <li>• Compliance Corporation</li> </ul>	



# Shipboard Radio Communications Support



**Engineering and technical support services including integration, testing, installation and verification of radio communications systems for US Navy ships.**

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ 5 years beginning 2QFY13</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3rd Qtr FY12</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>2nd Qtr FY 13</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b>  <p style="text-align: center;">301-995-8326</p>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompete)</b> <ul style="list-style-type: none"> <li>▪ N00421-01-C-0077</li> <li>▪ BAE Systems</li> </ul>



# Intelligence Operations Communication Support



**Services in support of a wide variety of intelligence/intelligence-related technical support assignments and responsibilities.**

Acquisition Strategy	Period of Performance	Milestones						
<ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 years beginning in 1QFY13</li> </ul>	<table border="0"> <tr> <td>3<sup>rd</sup> Qtr FY12</td> <td>1sr Qtr FY 13</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>RFP Release</td> <td>Contract Award</td> </tr> </table>	3 <sup>rd</sup> Qtr FY12	1sr Qtr FY 13			RFP Release	Contract Award
3 <sup>rd</sup> Qtr FY12	1sr Qtr FY 13							
								
RFP Release	Contract Award							
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)						
301-995-8441	<ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<ul style="list-style-type: none"> <li>▪ N/A</li> </ul>						



# Life Cycle Support Engineering



**Engineering and Technical Services in Support of Integration, Production, LSE and ISE for RCS/C5ISR systems on board Navy surface combatants.**

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>
<ul style="list-style-type: none"><li>▪ Full and Open Competition</li></ul>	<ul style="list-style-type: none"><li>▪ 5 years beginning in 4QFY13</li></ul>	<p>2nd Qtr FY13                      4 th Qtr FY 13</p> <p>                      </p> <p>RFP                                      Contract Release                                      Award</p>
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>
301-995- 8454	<ul style="list-style-type: none"><li>▪ \$50M and Over</li></ul>	<ul style="list-style-type: none"><li>▪ N00178-04-D-4018 M803</li><li>▪ BAE Systems</li></ul>



# Communications and Information Systems Support



## Technical Services to Support Communications and Information Systems (IT, C4I, GIS, IETM, IDMS, AIT, Multimedia and Sensor Systems).

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 years beginning in 4QFY13</li> </ul>	2 <sup>nd</sup> Qtr FY 13  RFP Release	4 <sup>th</sup> Qtr FY 13  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
301-995-8543	<ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>		



# CNIT acquisition support for PM ARES



The purpose of the effort is to provide acquisition support for PM ARES programs.

Effort	ACQ Strategy	PoP	Milestones		Funding
			2 <sup>nd</sup> Qtr FY13 RPF Release	4 <sup>th</sup> Qtr FY13 Award	
MARSS CLS	Competitive	60mos beginning in 4QFY13	2 <sup>nd</sup> Qtr FY13 RPF Release	4 <sup>th</sup> Qtr FY13 Award	Est. \$835M
ARL-L	Competitive	60mos beginning in 4QFY13	2 <sup>nd</sup> Qtr FY13 RPF Release	4 <sup>th</sup> Qtr FY13 Award	Est. \$159M

Acquisition Strategy	Period of Performance	Milestones	
<ul style="list-style-type: none"> <li>Varies</li> </ul>	<ul style="list-style-type: none"> <li>Various</li> </ul>	Various Qtr FY13  Order Released	Various Qtr FY13  Contract Award
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)	
John Cooper 301-342-0109	<ul style="list-style-type: none"> <li>Est. Varies</li> </ul>		



# Planned Opportunities



# Partnership Opportunities



- **Patents available for Commercialization**
  - *Several Patents by 4.5.3 personnel in the fiber optic splicing and BIT areas that could be applicable to commercial sector. POC: Mark Beranek, 342-9115*
  - *Image Enhancer for Detecting and Identifying Objects in Turbid Media (Oct 2011). POC: Brandon Cochenour, 342-8639*
  - *Extended Range Optical Imaging System for Use in Turbid Media (application: June 2010). POC: Brandon Cochenour, 342-8639*
- **Examples of Cooperative Research and Development Agreements**
  - *CRADA in place. Investigating next generation Ocean LIDAR systems (mine detection, ASW, etc..)*
- **Examples of Commercial Service Agreements**
  - *The Facilities for Antenna and RCS Measurements (FARM) have had (and currently have) CSAs with industry.*
- **Other Areas of Interest for Collaboration**
  - *Blue/green laser development*
  - *Blue/green optical receiver development*
  - *LIDAR development/phenomenology*
  - *Underwater laser imaging*
  - *Underwater laser communications*



# Questions



## Integrated Systems Evaluation, Experimentation & Test (5.1)



*Presented by:*

**Mr. Stephen E. Cricchi**

Director, Integrated Systems Evaluation  
Experimentation & Test Department  
(AIR-5.1)



# Disclaimer



- **The information about to be presented affords industry partners insight into on-going and pending acquisitions.**
- **Significant portions of the information are planning in nature and are subject to change throughout the acquisition planning and acquisition strategy approval process, and in response to Naval Air Systems Command, Deputy Assistant Secretary of the Navy (Acquisition, Technology and Logistics) and Defense Procurement Acquisition Policy peer reviews.**
- **The Procurement Contracting Officer is your source for the most current information.**



# ISEET Mission



**Provide Naval aviation and the Naval Air Systems Command with premier test, evaluation, and experimentation support and expertise.**

**Provide effective, efficient, and professional response to Program Executive Office/Program Manager (PEO/PM) sponsor requirements in the planning, executing, and reporting of test and experimentation projects.**

**Remain focused on the needs and safety of the Navy and Marine Corps warfighters.**





# 5.1 Responsibilities



**Provides the resources for full life cycle program T&E support from requirements review to the design, direction, execution and evaluation of experiments and tests of aircraft, unmanned air vehicles, weapons and weapons systems.**





# 5.1 Snap Shot



- Personnel – 3,529 total
  - 601 Military
  - 1,042 Civil Service
  - 1,386 CLS/500 CSS
- Program T&E Leadership
  - APEO (T&E)
  - APM (T&E)
  - Lead Test Engineers (LTE)
  - Lead Experimentation Engineers (LEE)
- Flight Test Engineers, Aircrew, & Pilots
  - Air Vehicle
  - Weapons
  - Mission Systems
  - Carrier Suitability
- Test Plans
  - 600 annual approvals
  - AIR-5.1 and all other NAVAIR competencies
  - 3 NAVAIR ranges
  - NAVAIR external customers
- Reports
  - ~200 annual reports of test results
  - >1,150 annual deficiency reports
- Flight Operations
  - ~200 aircraft
  - >60 aircraft model/type/series
  - 26,000 annual flight hours
  - 17,000 annual sorties

**ISEET**  
Pax River, Pt. Mugu, China Lake,  
Orlando, Lakehurst, Huntsville



**T&E  
Acquisition  
Managers**

**Flight Test  
Engineers**

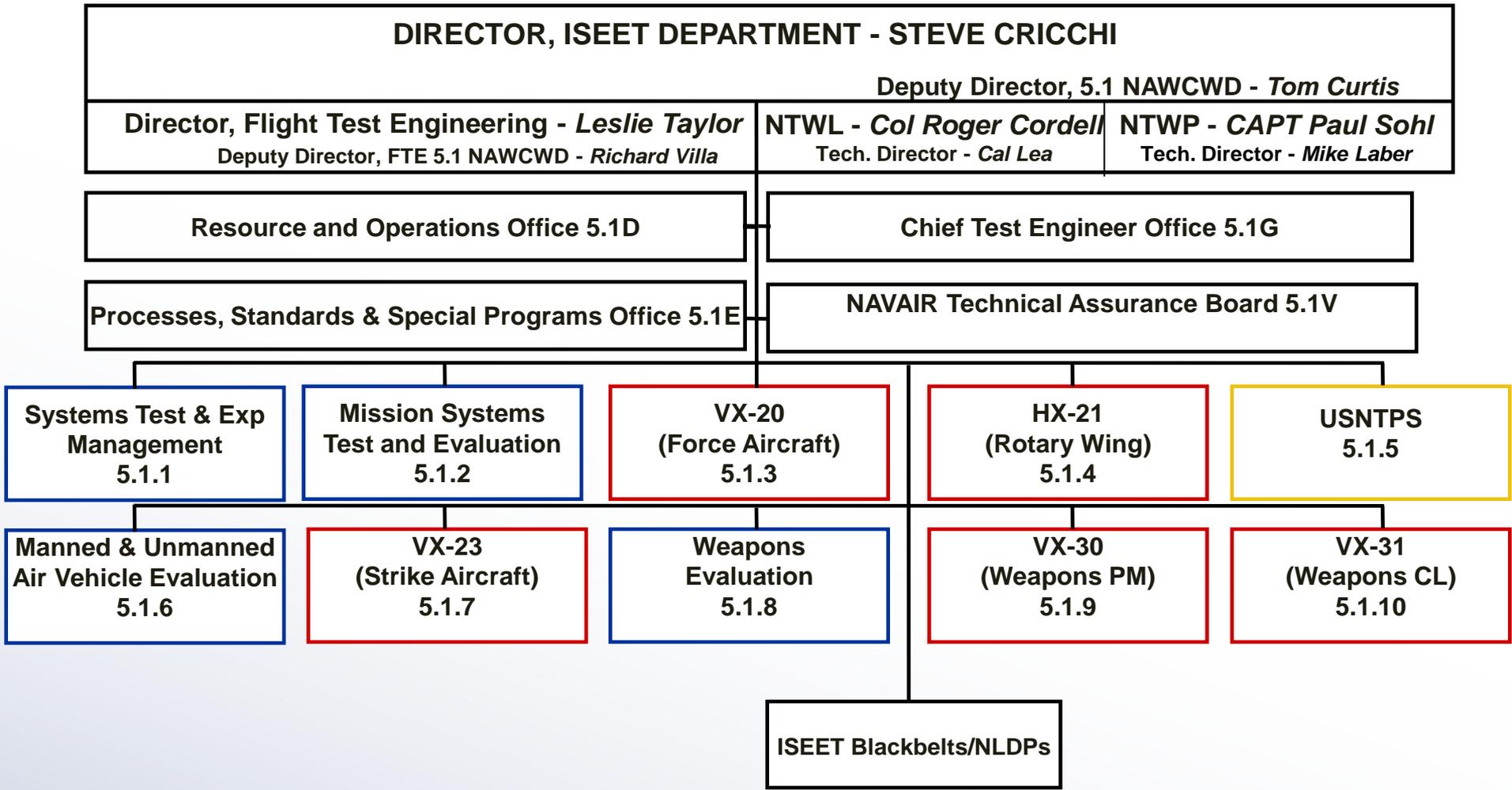
**Pilots and  
Airplanes**

**U.S. Naval Test  
Pilot School**





# 5.1 Organization



■ = Test Squadrons    
 ■ = Flight Test Engineers    
 ■ = Test Pilot School



# Long Range Forecast



# Mission Systems Contract Support Services



Provide Mission Systems Test & Evaluation Division (MSTED) with an industry partner to continue to be the Navy's Center of Excellence for Mission Systems Test & Evaluation. The MSED receives tasking from the Naval Air Systems Command and other customers to provide Developmental Test and Evaluation support for various programs and platforms.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> <li>▪ SeaPort-e</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ Base + 2 1-year options</li> <li>Beginning in 1QFY13</li> </ul>	<b>Milestones</b> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">3rd Qtr FY12</td> <td style="text-align: center;">2nd Qtr FY13</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">RFP Release</td> <td style="text-align: center;">Contract Award</td> </tr> </table>	3rd Qtr FY12	2nd Qtr FY13			RFP Release	Contract Award
3rd Qtr FY12	2nd Qtr FY13							
								
RFP Release	Contract Award							
<b>Point of Contact</b> <ul style="list-style-type: none"> <li>▪ Ken Senechal</li> <li>▪ 301-757-9530</li> </ul>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>						



# F/A-18 VX-23 Support Services



Provide engineering and technical services to support the F/A-18, EA-18G, F-35, T-45, and EA-6B Project Teams, along with other VX-23 squadron tasking. Included are test planning and operations services, functional engineering support, documentation support, flight operations coordination support, and corporate operations/system support.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> <li>▪ SeaPort-e</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ Base + 2 1-year options Beginning in 1QFY13</li> </ul>	<b>Milestones</b> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">3<sup>rd</sup> Qtr FY12</td> <td style="text-align: center;">1<sup>st</sup> Qtr FY13</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">RFP Release</td> <td style="text-align: center;">Contract Award</td> </tr> </table>	3 <sup>rd</sup> Qtr FY12	1 <sup>st</sup> Qtr FY13			RFP Release	Contract Award
3 <sup>rd</sup> Qtr FY12	1 <sup>st</sup> Qtr FY13							
								
RFP Release	Contract Award							
<b>Point of Contact</b> <ul style="list-style-type: none"> <li>▪ Pat Perusse</li> <li>▪ 301-757-4205</li> </ul>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$10 to \$50 Million</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ Wyle</li> </ul>						



# NAWCAD/NAWCWD AIRCREW & AIRCREW Support Services



RFP under development for new competitive contract. Anticipated award date 01 April 2013. Pilots, FEs, Loadmasters, Schedulers, Safety in support of NTWL and NTWP. Contractor shall have approved Flight Operations Manual.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ Base + 2 1-year options Beginning in 2QFY13</li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>3<sup>rd</sup> Qtr FY12</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>2<sup>nd</sup> Qtr FY 13</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> <ul style="list-style-type: none"> <li>▪ Lisa Rice</li> <li>▪ 301-342-6764</li> </ul>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$50M and Over</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b> <ul style="list-style-type: none"> <li>▪ Wyle</li> </ul>



# Naval Aviation Test & Evaluation University (NATEU) Support Services



Provides for the people, processes & facilities necessary to provide workforce development of the 5.0 competency in core and domain specific T&E flight test support. This includes University management along with course development.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> <li>▪ SeaPort</li> <li>▪ Small Business Set Aside</li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ Base + 2 1-year options Beginning in 1QFY13</li> </ul>	<b>Milestones</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;">3<sup>rd</sup> Qtr FY12</td> <td style="text-align: center; width: 50%;">1<sup>st</sup> Qtr FY13</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">RFP Release</td> <td style="text-align: center;">Contract Award</td> </tr> </table>	3 <sup>rd</sup> Qtr FY12	1 <sup>st</sup> Qtr FY13			RFP Release	Contract Award
3 <sup>rd</sup> Qtr FY12	1 <sup>st</sup> Qtr FY13							
								
RFP Release	Contract Award							
<b>Point of Contact</b> <ul style="list-style-type: none"> <li>▪ Victoria Butler</li> <li>▪ 301-757-6497</li> </ul>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ \$10M to \$50M</li> </ul>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>						



# Partnership Opportunities



- Examples of Industry Collaboration & Use of Laboratories and Test Facilities
  - Mini-pod Development on Navy Tactical Unmanned Aerial System (TUAS) Cooperative Research and Development Agreement (CRADA)
  - Unmanned Systems (UAS) Autonomous Experiment (CRADA)
  - Firescout Demo Commercial Service Agreement (CSA)
  - F-18 Flight testing on the Atlantic Test Range (CSA)
  - Flight Demonstrations of Industry Unmanned Air Systems (CSA)
  - Provided NATEU Courses to Industry (CSA)
  - Provided US Naval Test Pilot School Short Courses (CSA)



# Questions



Break



# Ranges (5.2)



*Presented by:*

**Mr. Robert Vargo**

Associate, Atlantic Test Range 5.2



# Atlantic Test Ranges



Provides safe, instrumented, controlled, outdoor flight testing and training in air, land and sea arenas to a diverse DoD customer base.

Fully instrumented and integrated test ranges provide full-service support for cradle-to-grave developmental T&E of aircraft and training for aircrew and integrated avionics and mission systems.

ATR T&E and training mission areas include:

- Aircraft Flying Qualities and Performance
- Carrier/Shipboard Suitability
- Air Vehicle Stores Compatibility
- Air Vehicle Survivability
- Mission Systems
- NAVSEA/Fleet Training/Surface Vessel Support/Other





# Patuxent River Special Use Airspace

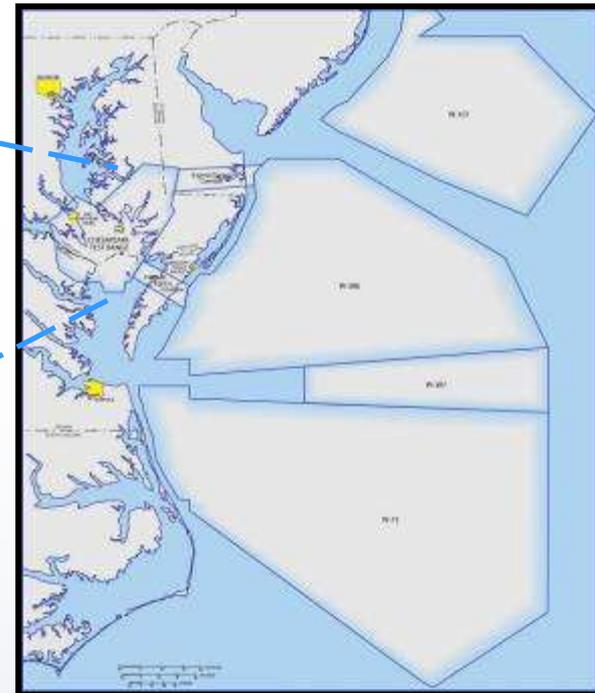
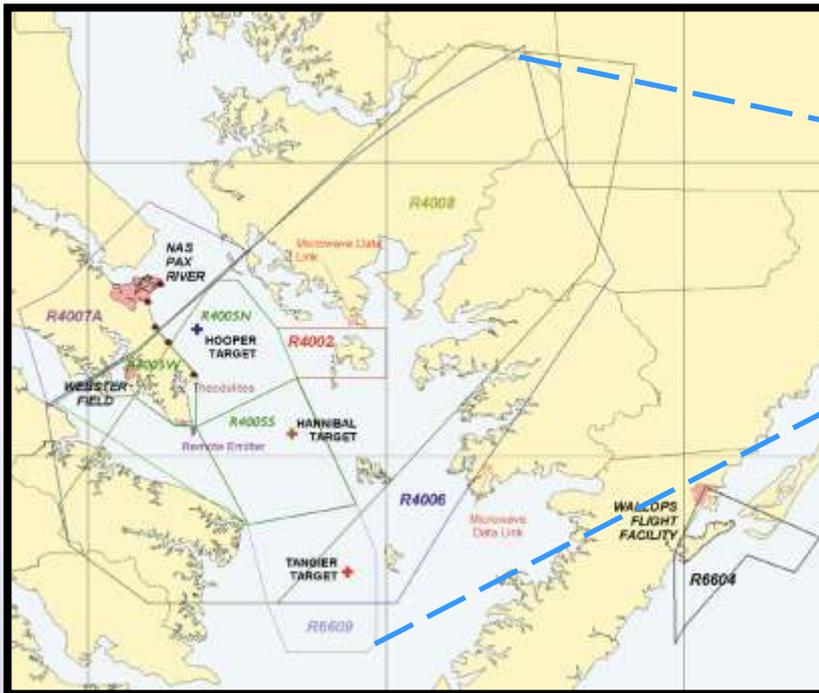


## Chesapeake Test Range

Restricted Areas R-4006/8, 6609  
(ext), 4007, Chessie A, B, C  
Approximately 2,700 square miles  
Surface to 85,000 feet

## Offshore Atlantic Ranges

Warning Areas W-386, 387, 72  
Approximately 50,000 square miles  
Surface to unlimited altitude





# Range assets and services



- Positive airspace control in designated warning and restricted areas
- High-rate telemetry data delivery
- Secure and unsecure voice and data communications
- Real time and 3D data processing and display
- Radio frequency spectrum management
- Weather forecasting
- GPS and Time Space Position Information (TSPI) data for cooperative and uncooperative air vehicles, vessels and other objects
- Visual and electro-optical tracking systems
- Laser and optical tracking mounts
- Geomatics & Metrology
- Photogrammetric post processing
- Radar
- Multi-spectral Electronic Warfare (EW) aircraft measurements
- EW threat emitters
- Mobile range assets



# Atlantic Targets & Marine Operations Division



- Provides land, sea, and aerial target services
- Designs, develops, fabricates and modifies target systems
- Deploys a range of vessels to support unique maritime requirements
- Operates maritime vessels
- Operates and maintains surface and aerial targets
- Designs and fabricates prototype land targets
- Full-scale sea target hulks for weapons effects testing
- Underwater and land test article recovery operations





# Description/Summary of Program Requirements



Technical, engineering, administrative and management support services for aircraft engineering and development flight test and fleet training capabilities at the Atlantic Test Ranges and the Atlantic Targets and Marine Operations.

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>									
<ul style="list-style-type: none"><li>▪ Full and Open Competition</li></ul>	<ul style="list-style-type: none"><li>▪ TBD beginning in 4<sup>th</sup> Qtr 2013</li></ul>	<table><tr><td>3<sup>st</sup> Qtr 2012</td><td>4<sup>th</sup> Qtr 2012</td><td>3<sup>st</sup> Qtr 2013</td></tr><tr><td></td><td></td><td></td></tr><tr><td>Draft RFP Release</td><td>RFP Release</td><td>Contract Award</td></tr></table>	3 <sup>st</sup> Qtr 2012	4 <sup>th</sup> Qtr 2012	3 <sup>st</sup> Qtr 2013				Draft RFP Release	RFP Release	Contract Award
3 <sup>st</sup> Qtr 2012	4 <sup>th</sup> Qtr 2012	3 <sup>st</sup> Qtr 2013									
											
Draft RFP Release	RFP Release	Contract Award									
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Incumbent Service Provider</b>									
Name: Greg Havens Phone: 301-342-1210	<ul style="list-style-type: none"><li>▪ Current Contract Value \$470M</li></ul>	<ul style="list-style-type: none"><li>▪ Computer Sciences Corp</li><li>▪ N00178-04-D-4030</li></ul>									



# Partnership Opportunities



- Patents available for Commercialization:
  - "Marine Vessel Traffic System" #6249241 Dated: 19-June-2001 (This is the Suretrak radar safety monitoring system)
- Industry Use of Laboratories and Test Facilities:
  - Electronic Warfare, Radar & other Mission Systems testing
- Cooperative Research and Development Agreements (CRADA's):
  - Air Surveillance Radar
- Commercial Service Agreements (CSA's):
  - Mission Systems
  - Airspace for UAS Testing
  - Corporate Foreign Military Sales



# AVMI: SH-60F/THOR

## Targeted High Output Responder (THOR)



Use: Projecting Steerable audio messages for hailing vessels and personnel in a dense acoustic environment

Currently two systems in active testing with HS-5 (limited operational evaluation)

Data ready to transfer to industry if system is successful

Response to a Joint Urgent Operational Needs Statement

Developed from a university laboratory device into a combat system





# Aircraft Prototype Facility



Prototyping support for all classification levels

3 Hangars with Engineering Spaces

- July 2010 100'x120'
- FY13 260' x 280'
- FY16 100' x 120'

Capabilities

- Installation Shop
- Wiring Shop
- Composites Fabrication Lab





# Questions



# Threat / Target Systems (5.3)



*Presented by:*

**Mr. Robert G. Graham**

NAVAIR Public Release 2012-305  
Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Atlantic Targets & Marine Operations Division



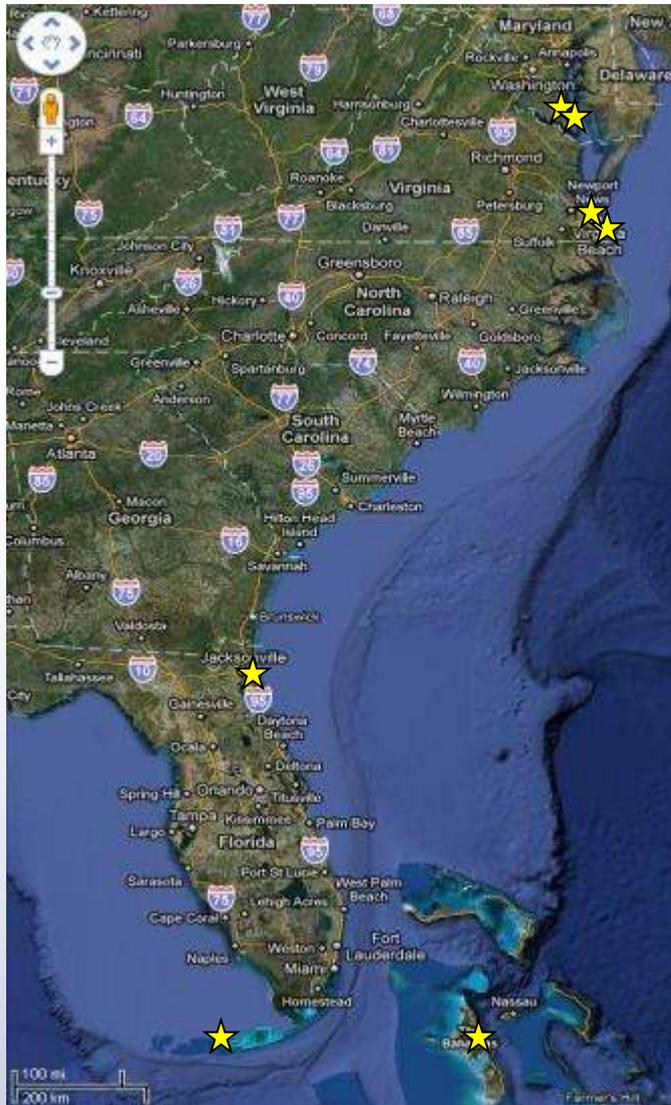
In support of our customers ATMO:

- Provides land, sea, and aerial target services
- Operates and deploys a range of vessels to support unique maritime requirements
- Designs and fabricates prototype land and sea targets
- Prepare Full-scale target hulks for weapons effects tests
- Provides underwater and land test article recovery operations





# Geographically Dispersed





# RDT&E and Fleet Training





# Key West Large Vessels



**Hunter - 200'**



**Retriever - 100'**



**NAWC-38  
192'**



**03 - 65'**



# Summary of 5.3.3 Key West Program Requirements



ATMO Key West operates and maintains vessels and facilities to support testing and training:

- Naval ASW Acoustic Systems RDT&E
- Underwater test article recovery operations
- Deployment of surface and aerial targets
- Explosive shock test support
- Maritime Interdiction Operation (MIO) training

Support services required include: Facility/Vessel Operation, Coordination and Planning Support; Project Support; Engineering Support; Material Handling; Diving Support; Fabrication; Ordnance Certification Program; Hazardous Material Program; and Quality Assurance.

<b>Acquisition Strategy</b> <ul style="list-style-type: none"> <li>▪ <b>Competitive SEAPORTe Task Order</b></li> </ul>	<b>Period of Performance</b> <ul style="list-style-type: none"> <li>▪ <b>5 Years</b></li> <li>▪ <b>Beginning (est) in 4<sup>th</sup> Qtr 2012</b></li> </ul>	<b>Milestones</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>1<sup>st</sup> Qtr 2012</p>  <p>RFP Release</p> </div> <div style="text-align: center;"> <p>4<sup>th</sup> Qtr 2012</p>  <p>Contract Award</p> </div> </div>
<b>Point of Contact</b> <p><b>Name: Jack Lockamy</b>  <b>Phone: 305-293-2078</b></p>	<b>Funding</b> <ul style="list-style-type: none"> <li>▪ <b>Current Contract Value \$24M</b></li> </ul>	<b>Current Incumbent Service Provider</b> <ul style="list-style-type: none"> <li>▪ <b>Seaward Service Inc.</b></li> <li>▪ <b>N00178-05-D-4554, M#801</b></li> </ul>



# Questions



# Integrated Battlespace Simulation & Test (5.4)



*Presented by:*

**Mr. John Kriz**

Director (Acting)

5.4 IBST

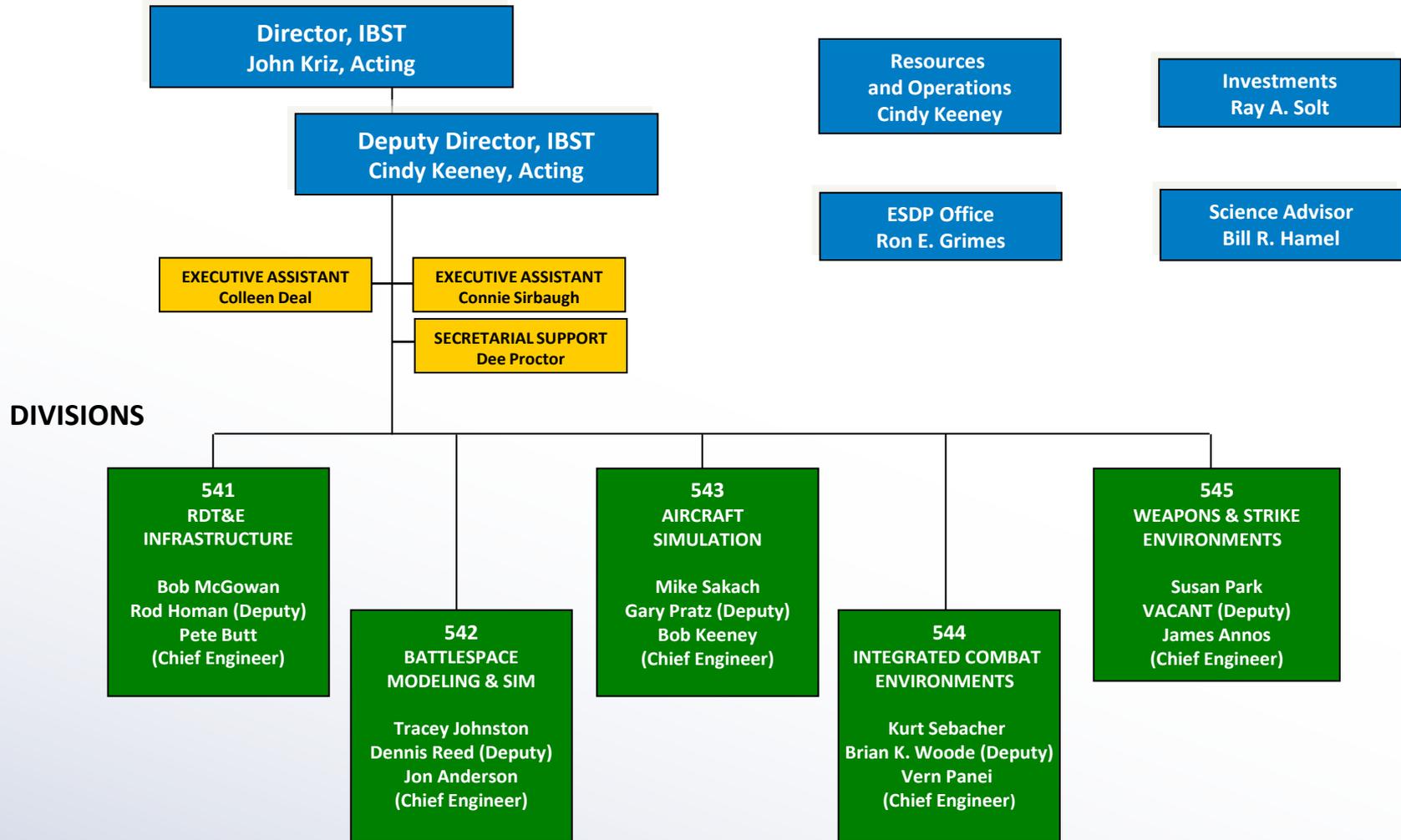
NAVAIR Public Release 2012-306

Distribution Statement A – “Approved for public release; distribution is unlimited.”



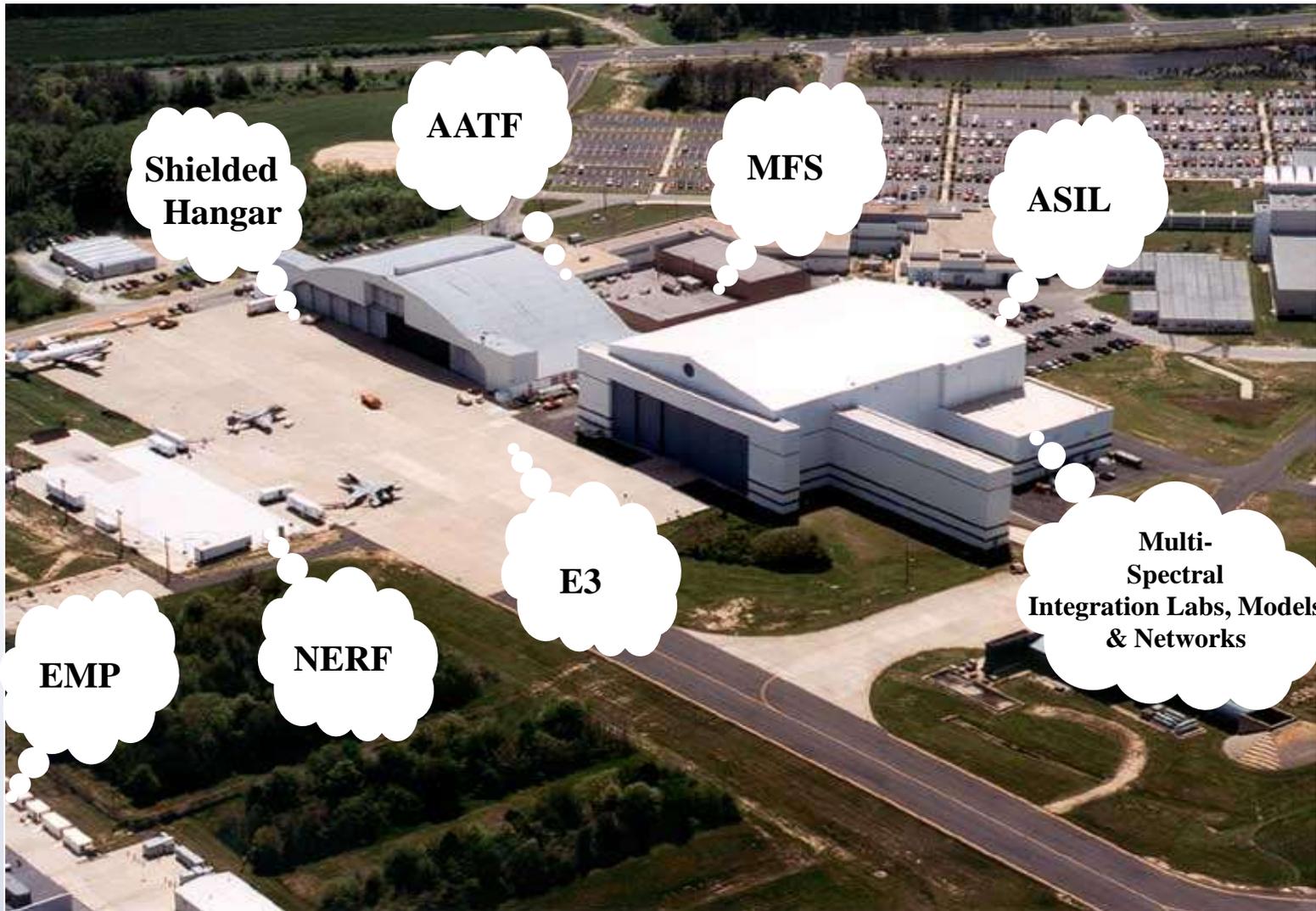
# Organization

## AIR 5.4 – Integrated Battlespace Simulation and Test





# Main PAX Compound





# The Evolution of T&E Capabilities



1970's

**HARDWARE**  
Installed System  
Assessment

+



1980's

**SIMULATE**  
Software-Based  
Emulations

+



1990's

**STIMULATE**  
Red/Blue  
Hardware  
Integration

+



2000's

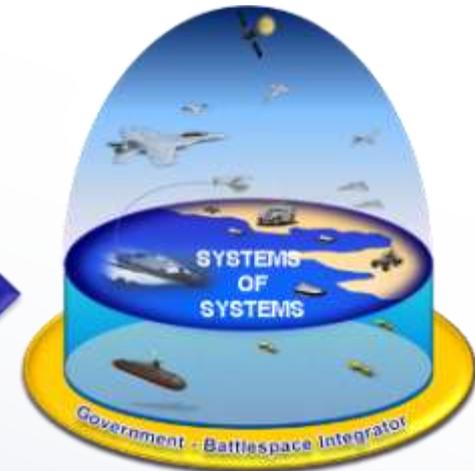
**COLLABORATE**  
Distributed  
Labs/Sites  
Integration  
"Hub and Spoke"

## Today's Demands

- Family-of-Systems
- Systems-of-Systems
- Environment Immersion
- Battlespace Representation



**Early Identification and Resolution of Deficiencies**  
Joint – Complex – Integrated - Collaborative Systems





# Naval Air Warfare Center Aircraft Division



## System Design and Development

- Simulations (DoD, Kr)
- Systems Integration Labs (DoD, Kr)
- Installed Systems Test Facilities (DoD, Kr)
- Open Air Ranges (DoD)
- Live Assets (DoD, coalition, other agency)

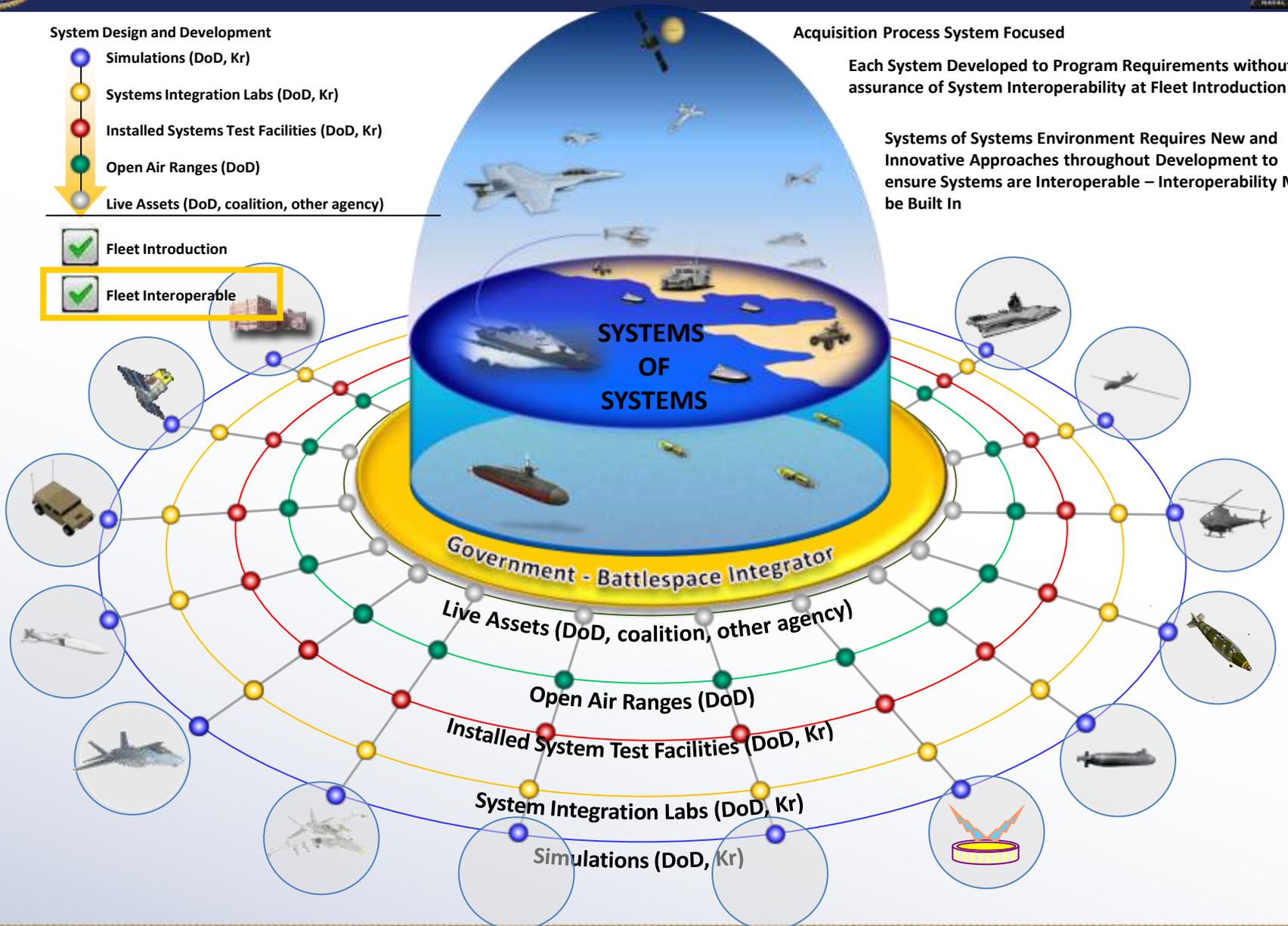
Fleet Introduction

Fleet Interoperable

## Acquisition Process System Focused

Each System Developed to Program Requirements without assurance of System Interoperability at Fleet Introduction

Systems of Systems Environment Requires New and Innovative Approaches throughout Development to ensure Systems are Interoperable – Interoperability Must be Built In

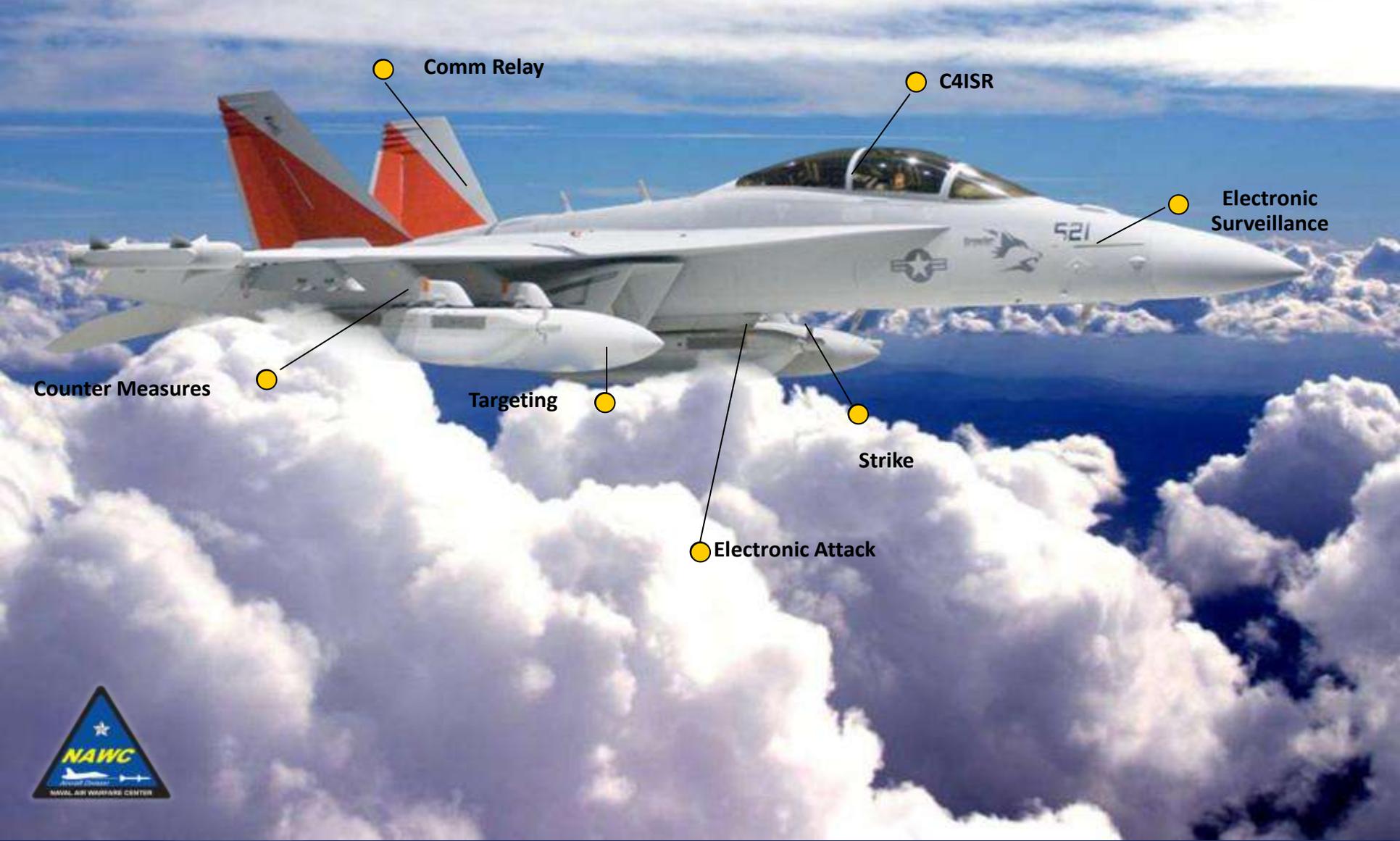




# Mission Roles (E/F/G Example)



## Battlespace Environment



Comm Relay

C4ISR

Electronic Surveillance

Counter Measures

Targeting

Strike

Electronic Attack





# Mission Roles (E/F/G Example)



## Immersive Environment



Replication of the Battlespace for Systems-of-Systems  
Development and Evaluation

Example: EA-18G within ACETEF





# Mission Roles (E/F/G Example)



## Integrated Labs



Leverage Integrated Labs to Simulate and Stimulate Systems  
 Early Discovery – Assure Integration – Build Confidence

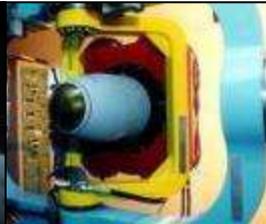




# Alignment of Capabilities and Functions



## IBST FUNCTIONAL AREAS



**Radar Reflectivity Lab (RRL)**

**Electromagnetic Environmental Effects (E3)**

**Integrated Battlespace Arena (IBAR)**

**Manned Flight Simulator (MFS)**

**Surface/Aviation Interoperability Lab (SAIL)**

**Air Combat Environment Test and Evaluation Facility (ACETEF)**



## Engineering, Technical, Operational, Test, Administrative and Logistics support for the Surface Aviation Interoperability Laboratory (SAIL).

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>		
<ul style="list-style-type: none"> <li>▪ Full and Open Competition</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 years beginning in 3QFY13</li> </ul>	<table border="0"> <tr> <td data-bbox="1238 751 1572 903"> <p>4th Qtr FY12</p>  <p>RFP Release</p> </td> <td data-bbox="1572 751 1760 903"> <p>3rd Qtr FY 13</p>  <p>Contract Award</p> </td> </tr> </table>	<p>4th Qtr FY12</p>  <p>RFP Release</p>	<p>3rd Qtr FY 13</p>  <p>Contract Award</p>
<p>4th Qtr FY12</p>  <p>RFP Release</p>	<p>3rd Qtr FY 13</p>  <p>Contract Award</p>			
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>		
<p>Jim Wojciechowski 301-342-3809</p>	<ul style="list-style-type: none"> <li>▪ \$50M to 100M</li> </ul>	<p>Current Contract - Wyle N00178-05-D-4663 M804</p>		



# Partnership Opportunities



- Examples of Industry Use of Laboratories and Test Facilities
  - Unmanned Aero Systems Integration Lab (UASIL) and Warfare Simulation Lab (WSL) utilized for distributed Battlespace Modeling and Simulation and Interoperability
- Examples of Cooperative Research and Development Agreements
  - Airborne Networking CRADA – Multiple CAPSTONE events with SAIL
- Examples of Commercial Service Agreements
  - Electromagnetic Environmental Effects Testing
- Other Areas of Interest for Collaboration
  - Collaborating on Modeling and Simulation and Unmanned Systems Operations
  - Cellular Technology
  - C4ISR



# Questions



# Information Technology / Cyber Security (7.2)



*Presented by:*

**Mr. Ken Boyd**

Director, IT / Cyber Security

NAWCAD

NAVAIR Public Release 2012-300

Distribution Statement A – “Approved for public release; distribution is unlimited.”



# Information Technology/Information Management (IT/IM) Department



The IT/IM Department at the Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, Maryland, provides IT, IM, and Information Assurance (IA) products and services to Naval Air Systems Command (NAVAIR) Headquarters and other NAVAIR components.

## Core Service Areas

- IT Portfolio Management
- Enterprise Architecture
- IT Governance & Compliance
- Information Assurance
- Software & Applications Management
- Communications
- Enterprise Hosting
- IT Infrastructure
- Business Intelligence & Data Management
- Document Management
- Deskside Services
- Help Desk



# FY12 IT/IM Contractor Support Services



**IT Portfolio Management**  
**Enterprise Architecture**  
**IT Governance & Compliance**  
**Business Intelligence and Data Management**  
**Document Management**

**Software & Applications Maintenance**  
**Information Assurance**  
**Enterprise Hosting**  
**IT Infrastructure**

<b>Acquisition Strategy</b>  ▪ Army ITES-2S Contract Vehicle	<b>Period of Performance</b>  ▪ 3 years beginning in 4QFY12	<b>Milestones</b>  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">           3rd Qtr FY12              RFP Release         </div> <div style="text-align: center;">           4th Qtr FY12              Contract Award         </div> </div>
<b>Point of Contact</b>  Name: Steve Dudley Phone: 301-995-7800	<b>Funding</b>  ▪ \$50M and over	<b>Current Contract/Original Developer/OEM (if recomplete)</b>  ▪ GDIT



# FY12 IT/IM Service Requirements



Business Service Areas	Sub-Service Area
IT Portfolio Management	Business Operations
	Customer Experience Management
	Strategic Planning
Enterprise Architecture	Architectural Development
	Process Management
	Architectural Standards
IT Governance & Compliance	Compliance and Policy
	Clinger Cohen
	Annual Reviews
Business Intelligence and Data Management	Reporting/Data Marts
	Data Calls/Ad Hoc Requests
	Data Integration
Document Management	Scanning & Electronic Document Storage
Software & Applications Management	Application Development/Maintenance
	Web Administration
	Database Administration
	Quality Assurance
	Project Management
	Collaboration Frameworks
	Business Process Management
Information Assurance	Computer Network Defense
	Information Assurance Management
	Compliance & Assessment
Enterprise Hosting	Systems Administration
	Integration & Systems Engineering
IT Infrastructure	Cable Plant Management
	Infrastructure Engineering



# FY13 IT/IM Contractor Support Services



- **Communications:**
  - Video
  - Organizational Messaging
  
- **Deskside Services:**
  - Break/Fix/Touch Labor
  - NMCI POC Support Services
  - Software/Hardware Certification/Distribution
  
- **Help Desk**

<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>	
<ul style="list-style-type: none"> <li>▪ DOD IDIQ (NAVAIR 6.8 Vehicle)</li> </ul>	<ul style="list-style-type: none"> <li>▪ 3 years beginning in 2QFY13</li> </ul>	1st Qtr FY13  RFP Release	2nd Qtr FY13  Contract Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>	
Name: Steve Dudley Phone: 301-995-7800	<ul style="list-style-type: none"> <li>▪ \$10M to \$50M</li> </ul>	<ul style="list-style-type: none"> <li>▪ PSI -Sierra</li> </ul>	



# FY13 IT/IM Service Requirements



Business Service Areas		Sub-Service Areas
Communications	Video	VTC Support
		Conference Call Support
	Organizational Messaging	Defense Messaging Service Center of Excellence
Deskside Services		NMCI Order Services
		NMCI POC Support
		NMCI Software/Hardware Certification & Distribution
		Break/Fix Touch Labor
Help Desk		Tier1/Tier2 Support
		Knowledge Management
		Metrics / Reporting



# Questions



# Closing Remarks