



# Warfare Center Experimentation and Demonstration Engagement





# NAWCAD

**10,000+ military, engineers,  
testers, scientists, and other  
business professionals**

**300+ labs**

**27,000+  
sq. miles of airspace**

**Collaborating nationally  
to deliver capability to  
our Warfighters**

★ Lakehurst, NJ

★ Patuxent River, MD  
★ St. Inigoes, MD

★ Orlando, FL



# Collaboration Strategy

## Understand the Warfighting Gap



- ❖ Understand the needs
- ❖ Understand the scenarios
- ❖ Aligned to warfighter need



## Work with S&T, Academia and Industry



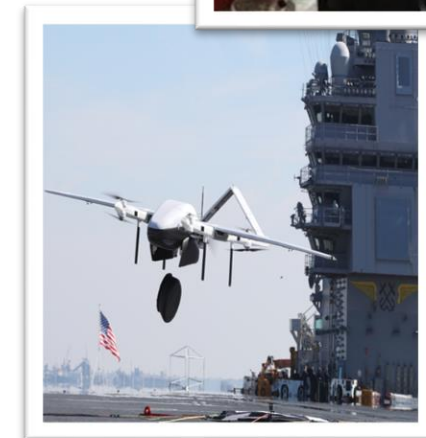
- ❖ CRADAs, OTAs, LRP/FRP MAC
- ❖ Risk reduction opportunities
- ❖ Enables requirements refinement
- ❖ Resolving unknowns in design, assembly, and integration



## Experimentation & Demonstration



- ❖ Quick-Look at the 'art of the possible'
- ❖ Accelerates learning
- ❖ Focus on feasibility, and transition ability
- ❖ Knowledge of technology maturity...forcing function to perform
- ❖ Reporting provides recommendations, risks, and highlights fleet integration considerations – Possible contract strategies



# Collaboration With Industry And Warfare Centers Is Vital To Closing Warfighting Gaps



Long Range Fires



C5ISR



Terminal Defense



Contested Logistics



Unmanned Systems



Overmatch/  
Naval Op. Arch.



LVC  
Capabilities

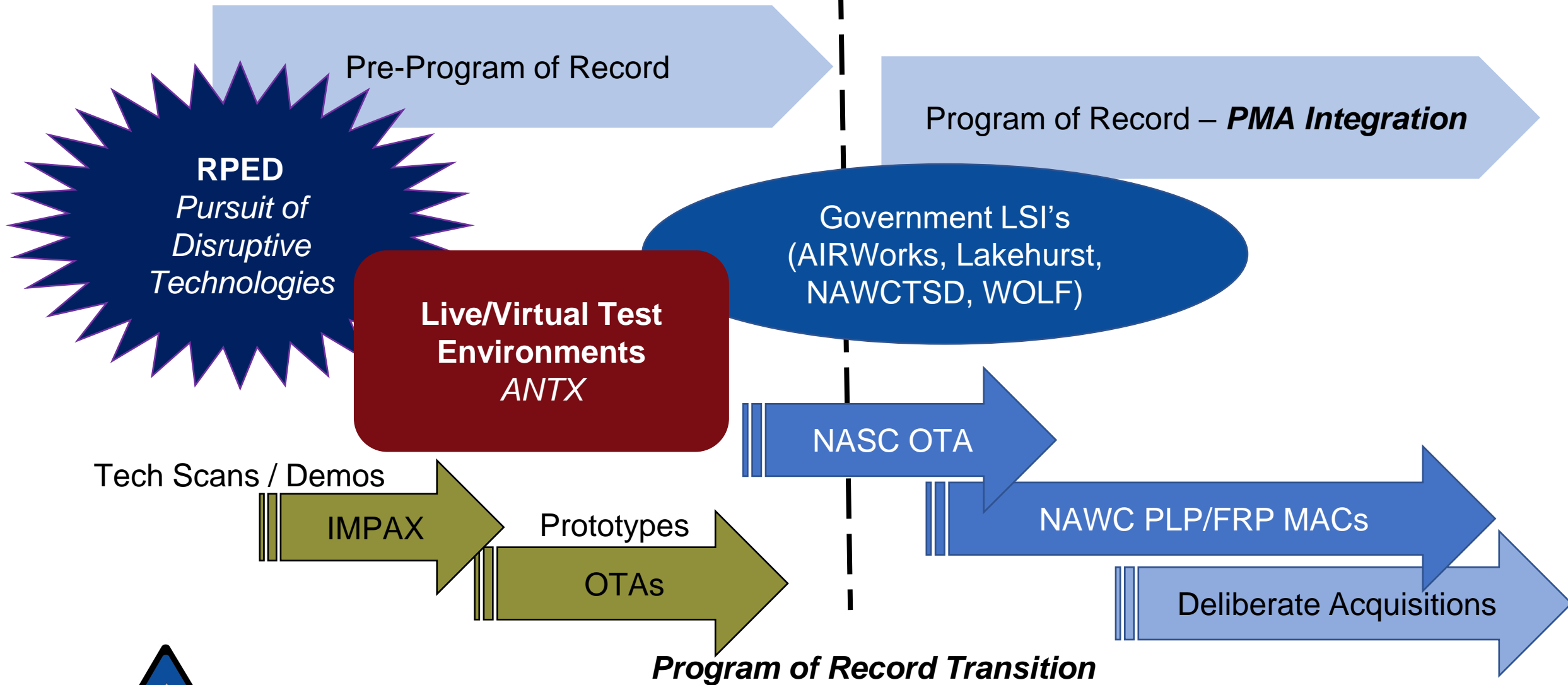


Artificial  
Intelligence

The NAWC enables Integrated Warfighting Capabilities & North Star Program objectives by transforming and maturing key enabling capabilities across platforms and programs.



# EVOLUTION OF PROJECT SPACE IN THE WARFARE CENTER



# Options To Enter The Warfare Center

## IMPAX

### IMPAX

- [Ecosystem | IMPAX](#)
- Call for technology in different areas
- Looking for the art of the possible

## OTA

### Other Transactional Authority

- [CMG NASC | Naval Aviation Systems Consortium](#)  
([nascsolutions.tech](https://nascsolutions.tech))

## CTSO CTO RPED

### CRADA (Rick Tarr)

- NAWC Entry at either coast
- Zero Dollar Exchange

### SBIR/ STTR (Danielle Moulds)

- Proposal cycle coming

### Cyber Rodeo (Tracey Quade)

- FAA Aligned Activity focused on cyber technical/ test areas

## Cyber Rodeo

### NAVAIR Broad Agency Announcement (BAA)

- Look at new technology
- [navalaviationnorthstarsbaa@us.navy.mil](mailto:navalaviationnorthstarsbaa@us.navy.mil)

## BAA

**GET INVOLVED.**



# Work With The Warfare Center To Find The Right Venues

## NAWC

- Provides Risk Reduction for entrance to a larger event
- Leverages the NAWC & other warfare center capabilities
- Can invite any participants (virtually or in person)
- Priority of the event for execution – reschedule opportunities for weather or broken resources

## N944 FLEET EVENT

- LSE, Task Force 59, Task Force 66, Integrated Battle Problem
- Opportunity to experiment with actual fleet assets (in most cases)
- Invitation for any participants controlled by scheduling organization
- Fixed schedule and limited priority of the event for execution

## NWDC EVENT

- RIMPAC, Northern Edge, Storm Force
- Graduation Exercise of technology with significant Fleet Leadership involvement
- Failing in these exercises can be high risk for potential transition pathways
- Invitation for any participants controlled by scheduling organization
- Fixed schedule and limited priority of the event for execution



# Entry And Outcomes Of Experimentation

## Entry Considerations

- Readiness of technology/TRL
- Desired vignettes/venue
  - Live, Virtual, Constructive
- Alignment to a PMA/PEO/OPNAV for transition
- Desired contract outcome
  - Continued development of technology?
- Test objectives
- Resources potentially required
- Desired collaboration with other mission areas (NAVWAR/NAVSEA)
  - CTO/RPED connections exist here

## Outcomes

- Other Transactional Authority (OTA)
- Transition ability insight
- Potential limited contract
- Refined requirements
- Operator inputs on CONOPS, utility and supportability
- Spin In/Spin Out





# Successful Collaborative Technologies

## ➤ **Blue Water Logistical UAS (PMA-263)**

- IMPAX Flight Demonstrations
- OTA Awarded
- Local and Fleet Experimentation Events

## ➤ **P-8 Defensive Pod (PMA-290)**

- OTA Awarded
- Collaboration with APSD for Prototype
- Flight Demonstrations
- Contract for Fleet implementation

## ➤ **Master Aviation Plan Automation / Visualization (N98/ CNAL/CNAP)**

- IMPAX Demonstrations
- Requirements Development
- Collaborative Module Development with Industry and Government





# North Stars BAA BLUF

**Purpose:** Identify **competitive rapid prototyping and experimentation research projects** that achieve or enable the Naval Aviation North Star capabilities.

**Scope:** Research, development, scientific study, experimentation and prototyping in a **fully informed security environment**.

**Instruments Available:**

- ✓ FAR Contracts
- ✓ Non-FAR OTAs

**Objectives:**

1. Demonstrate integrated / interoperable and cyber-resilient performance through a brief cycle (~6-18 months) of LVC activities, may include a Naval/Joint Exercise.
2. Establish the infrastructure (including workforce) for accelerated acquisition and delivery of emergent and advanced research solutions.

**Areas of Interest:**

- North Stars... Key Capabilities
  - Weapons Capability & Capacity
  - Long Range Fires
  - Maritime Domain Awareness
  - C5ISR, Counter-C5ISR & Targeting
  - Unmanned Carrier Aviation, ISR, Refueling
  - Manned-Unmanned Teaming
  - Carrier Air Wing 4<sup>th</sup>/5<sup>th</sup> GEN Integration
- Naval Aviation Missions
  - Anti Submarine Warfare
  - Surface Warfare
  - Air Warfare
  - Electronic Warfare
  - Strike Warfare
  - Mobility
- Enabling Science and Engineering
  - Cyber-Resilient, Secure Communications & Networks
  - Avionics, Sensors & Electronic Warfare
  - Readiness and Sustainment
  - Mission / Systems Engineering
  - Test and Evaluation
  - Human Systems Integration
  - Warfare Analysis

**Process:** [navalaviationnorthstarsbaa@us.navy.mil](mailto:navalaviationnorthstarsbaa@us.navy.mil)



# Summary

- The command is facilitating communication across the Navy
  - We offer unique strategies for accelerated acquisition
  - We provide engineering, administrative and financial resources for pulling S&T, experimentation and test events together
- The NAWCAD Experimentation events offer the opportunity to show reality instead of glossy brochures for both organic, academic and industry solutions to fill warfighting capability gaps.
- The command can also aid in determining the right experimentation venue (Organic, Fleet, etc).



# Command Entry Points



## Rapid Prototyping, Experimentation & Demonstration Office

Christina Allee, Acting Director  
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## Chief Technology Office

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## NAVAIR North Stars BAA

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## Tech Bridge/ Tech Transition Partner

Rick Tarr (Patuxent River)  
Kevin Larkins (Lakehurst)  
Diana Teel (NAWCTSD)



# Questions





**WE MAKE AN IMPACT**

**[HTTP://WWW.NAVAIR.NAVY.MIL/NAWCAD](http://www.navair.navy.mil/NAWCAD)**

**A NAVAIR COMMAND**