NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION



The United States Navy's principal center for training systems: [RESEARCH] [DEVELOPMENT] [ACQUISITION] [TEST AND EVALUATION] [PRODUCT SUPPORT]

Training & Simulation Industry Symposium 2020

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[AIR WARFARE AND MUCH MORE]

FY19 Summary*

+ Naval Aviation



+ Cross Warfare







+ Ready Relevant Learning



FY19 OBLIGATIONS: \$1.4B FY19 REIMBURSABLES: \$220M CONTRACT ACTIONS: 1,351

	•
PERSONNEL	1,563
Government Civilian	1,270
CSS	253
Military	40

+ Undersea

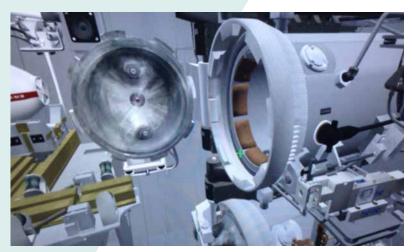


+ International



* All numbers approximate ** PGM Value indicates amounts currently obligated on contract





[FOCUS AREAS]

+ FLEET READINESS

• Maintain relevant fielded devices that support current ops

+ EXPANDED FLEET CAPABILITY

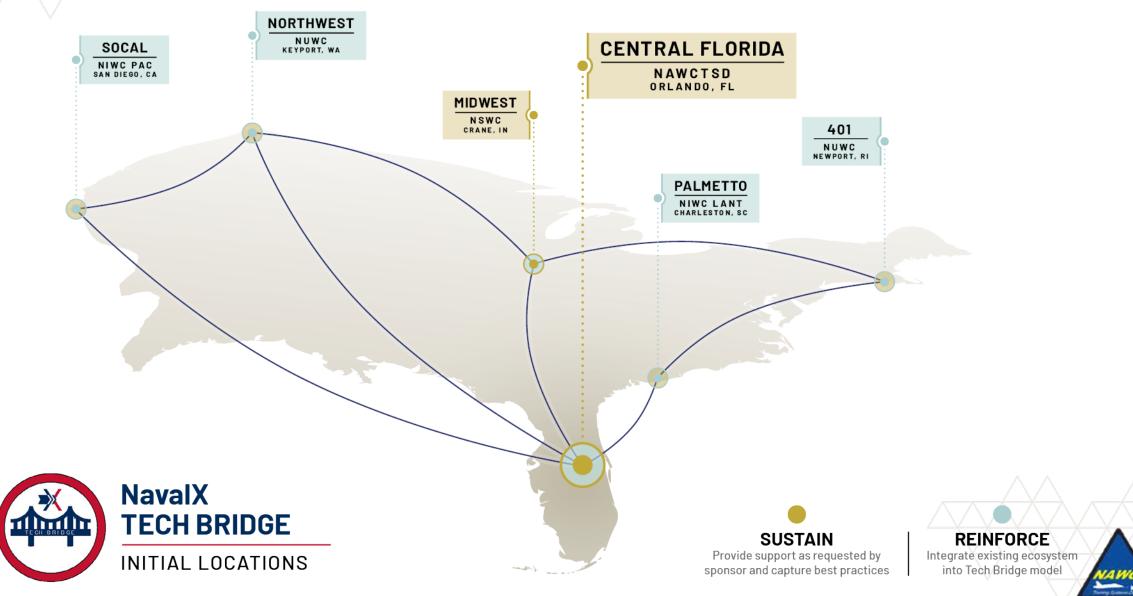
- Delivering integrated warfighting capability/networked training opportunities
- Foster Live, Virtual, Constructive (LVC) training solutions

+ LIFE-LONG LEARNING

- Meet needs of Navy career path training
- Implement intelligent tutoring and AI across training areas
- Develop embedded assessment and data analysis tools
- + CYBER SECURITY
- + IMPROVED DATA-DRIVEN DECISION MAKING
- OPTIMIZED PROCESSES FOR SPEED TO THE FLEET



[NavalX TECH BRIDGES] Ecosystem of Ecosystems



[COLLABORATION] We meet Fleet needs Together!

















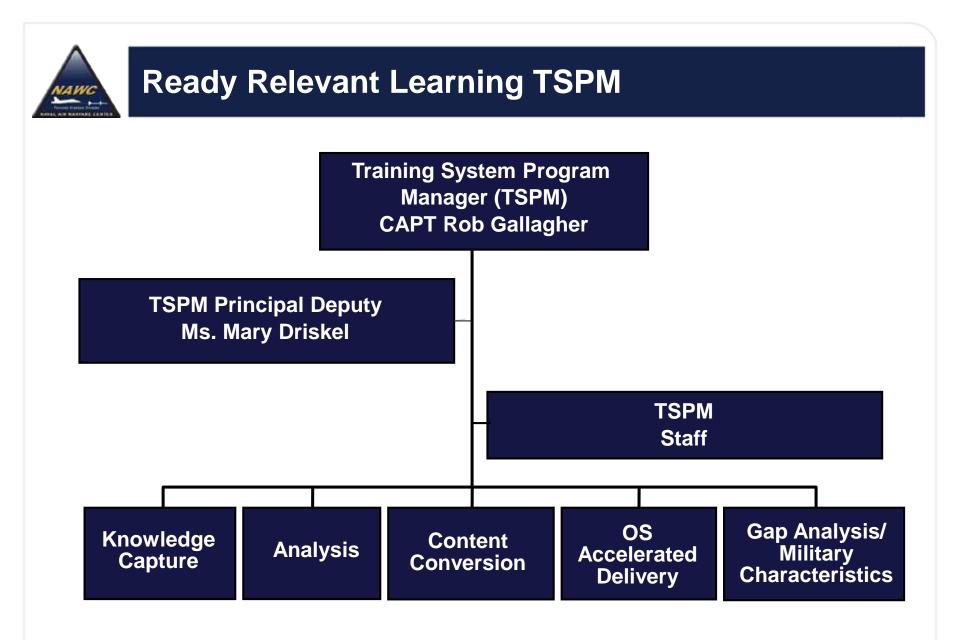


NAWCTSD



CAPT Robert Gallagher

Ready Relevant Learning Training System Program Manager





Sailor 2025 RRL - FY21 Content Conversion

Description/Summary of Program Requirements

This acquisition is for the conversion of the content and media for the current delivery state of the Aviation Machinists Mate (AD), Aviation Structural Mechanic's Hydraulics (AM), Electronics Technician - Submarines (ETV), Fire Control Technician (FT), Information Systems Technician (IT) Master at Arms (MA), and Mineman (MN) ratings, as well as, Train-The-Trainer (TTT) and course Pilot training activities through a Single-Award, Indefinite Delivery / Indefinite Quantity (IDIQ) Contract.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
Full and Open	3 Yrs	June 20	Mar 21
Competitive			\bigtriangleup
Single-Award, IDIQ		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: CAPT Robert Gallagher	\$105M	N/A	M (IF RECOMPETE)
Organization: RRL TSPM			
Phone: 407-380-8311			
Email: robert.m.gallagher@navy.mil			



Sailor 2025 RRL - FY22 Content Conversion

Description/Summary of Program Requirements

This acquisition is for the conversion of the content and media for the current delivery state of the Fire Controlman Aegis (FCA), Gunners Mate (GM) and Fire Controlman (FC) ratings, as well as, Train-The-Trainer (TTT) and course Pilot training activities through a Single-Award, Indefinite Delivery / Indefinite Quantity (IDIQ) Contract.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
Full and Open	3 Yrs	Q3 FY21	Q2 FY22
Competitive			\bigtriangleup
Single-Award, IDIQ		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: CAPT Robert Gallagher	\$195M	N/A	M (IF RECOMPETE)
Organization: RRL TSPM		N/A	
Phone: 407-380-8311			
Email: robert.m.gallagher@navy.mil			





Brian Hicks

Director, Aviation Programs



Navy Training Systems





Numerous aviation platforms in-production and in sustainment require revision, update and/or new development of Organizational and Intermediate Maintenance (CNATTU) and operator (Pilot-AW FRS/Weapon School) courseware training materials. Includes FLASH Courseware conversion.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Competitive - Full and Open – Small Business Set Aside	5 Years	Sep 2020	2 nd Qtr FY21
Business Set Aside			
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL
Name: Brian Hicks	\$100M	Carley	M (IF RECOMPETE)
Organization: NAWCTSD, PDA		Cancy	
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



Simulator and Electronic Classroom computer resource update to the MH-60R/S maintenance training systems and operational flight trainers. Incorporate trainer unique Engineering Changes Orders and deficiency corrections. Improve cyber security posture of MH-60R/S training systems. Implement latest Coordinated Distributed Mission Package and Distributed Mission Training requirements.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	rones
New Competitive IDIQ – Full	6 Years	4 th Qtr FY22	2 nd Qtr FY23
and Open			
		RFP Release	Contract Award
	FUNDING	CURRENT CONT DEVELOPER/OEA	RACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$60M	CAE/JF Taylor/BSC	;
Organization: PMA-205			
Phone: (301) 757-6944			
Email: Lisa.Sullivan@navy.mil			



P-8A Jacksonville Tech Refresh

Description/Summary of Program Requirements

Hardware obsolescence technology refresh to all devices (OFT, WTT, PTT, TSSC, Maintenance Trainers).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
Sole Source	5 Years	3 rd Qtr FY22	3 rd Qtr FY23
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: CAPT Lisa Sullivan	\$100M	Boeing	
Organization: PMA-205			
Phone: (301) 757-6944			
Email: Lisa.Sullivan@navy.mil			



Hardware obsolescence technology refresh to all devices (OFT, WTT, PTT, TSSC).

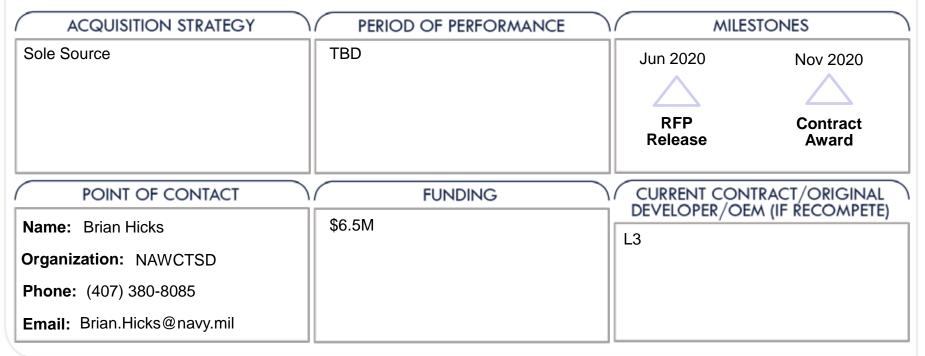
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
Sole Source	5 Years	3 rd Qtr FY23	3 rd Qtr FY24
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$100M	Boeing	
Organization: PMA-205		boeing	
Phone: (301) 757-6944			
Email: Lisa.Sullivan@navy.mil			



F/A-18C/D USMC Image Generator Technology Refresh

Description/Summary of Program Requirements

F/A-18 C/D Tactical Operational Flight Trainer upgrade to a more powerful Image Generator.





F/A-18C/D Simulated Aircraft Maintenance Trainer (SAMT) Upgrade

Description/Summary of Program Requirements

Upgrade the F/A-18C/D Simulated Avionics Maintenance Trainer (SAMT) to SCS/OFP 31C and update corresponding maintenance courseware.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
TSC IV	3 Years	3 rd Qtr FY21	1 st Qtr FY23
			\bigtriangleup
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING		RACT/ORIGINAL
Name: Brian Hicks	\$12M	/	s Corporation (ASC)
Organization: NAWCTSD			did last upgrade to
Phone: (407) 380-8085		23X.	
Email: Brian.Hicks@navy.mil		Courseware upgra Associates.	ides by DP



F/A-18E/F & EA-18G H18 Configuration Set/Operational Flight Program (SCS/OFP)

Description/Summary of Program Requirements

The H18 Software Configuration Set/Operational Flight Program (SCS/OFP) program will update the F/A-18E/F & EA-18G TOFT software to be concurrent with the fielded aircraft.

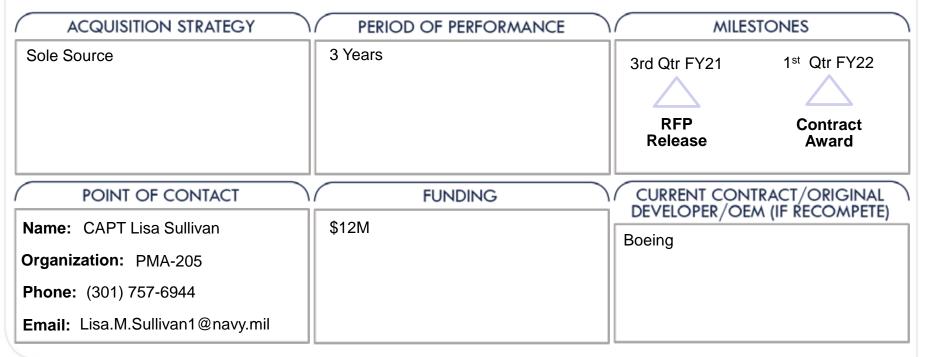
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILEST	ONES
Sole Source	3 Years	2 nd Qtr FY21	4 th Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING	CURRENT CONTI DEVELOPER/OEM	
Name: Brian Hicks	\$10M	Boeing	
Organization: NAWCTSD		Decing	
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



F/A-18E/F/G Maintenance Training System Tech Refresh

Description/Summary of Program Requirements

Hardware obsolescence/technology refresh to F-18E/F Maintenance Training Devices





Hardware obsolescence/technology refresh to all devices (TOFTs, LCTs and Maintenance Trainers).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
Sole Source	3 Years	1 st Qtr FY22	1 st Qtr FY23
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING		RACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$25M	Boeing/L3	
Organization: PMA-205		200mg/20	
Phone: (301) 757-6944			
Email: Lisa.Sullivan@navy.mil			



F/A-18E/F & EA-18G H20 Configuration Set/Operational Flight Program (SCS/OFP)

Description/Summary of Program Requirements

The H18 Software Configuration Set/Operational Flight Program (SCS/OFP) program will update the F/A-18E/F & EA-18G TOFT software to be concurrent with the fielded aircraft.

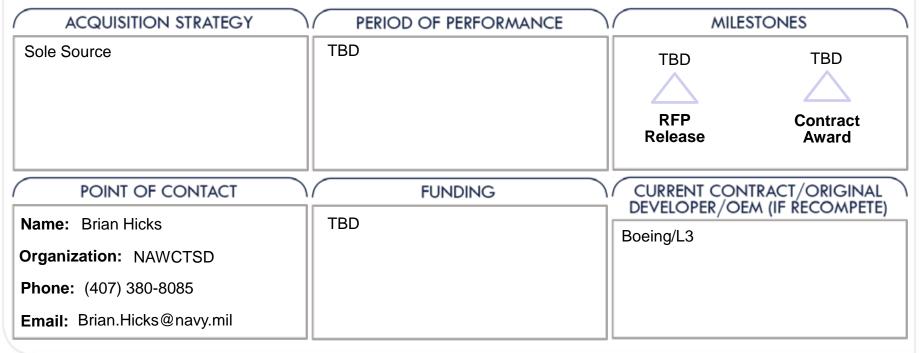
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILEST	ONES
Sole Source	3 Years	2 nd Qtr FY23	4 th Qtr FY23
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CONT	
Name: Brian Hicks	\$10M	Boeing	
Organization: NAWCTSD		Dooling	
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



F/A-18E/F Tactical Operator Flight Trainer (TOFT) Block III Upgrade

Description/Summary of Program Requirements

Upgrade the F/A-18E/F TOFTs to the Block III Configuration





EA-18G Tactical Operational Flight Trainer (TOFT) Block II Upgrade

Description/Summary of Program Requirements

Upgrade the EA-18G TOFTs to the Block II Configuration

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
Sole Source	TBD	TBD	TBD
		RFP Released	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Brian Hicks	TBD	Boeing	
Organization: NAWCTSD		Deemg	
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



Develop and Integrate E-2D DSSC-4 capability in the HITS (WST's, DDRT's, SMT's, PPC and Instructional Systems) for Norfolk, Pt Mugu and Iwakuni. Build and integrate into new LP-49 Annex building (FY24) WST #6. Develop and provide technical evaluation for application of DSSC-5 for future Contract actions. Develop DSSC 5 capability in appropriate System Integrated Lab environment for all applicable HITS Devices. Transition program post DSSC #4 to 'Program Level' development and integration environment.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	5 Years	Jun 2020	3 rd Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		NTRACT/ORIGINAL
Name: Brian Hicks	\$390M	Collins Aerospac	
Organization: NAWCTSD, PDA			6
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



Significant differences exist between T-45C Virtual Mission Training System (VMTS) aircraft & Operational Flight Trainer (OFT) device # 2F205A, with training disparity inhibiting Student Naval Flight Officers (SNFOs) from developing skill patterns required to meet Course Training Standards. Deliver Part Task Trainer (PTT) to meet syllabus radar task learning objectives. PTT accurately replicates capability and operations of the simulated radar currently utilized in 2F205A OFT. Provide aircraft concurrency updates to six T-45C VMTS OFTs and radar PTT located at Naval Air Station Pensacola FL.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	4 Years	Jun 2020	2 nd Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		ITRACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$45M	Boeing	M (IF RECOMPETE)
Organization: PMA-205		Dooling	
Phone: (301) 757-6944			
Email: Lisa.M.Sullivan1@navy.mil			



CNATRA Advanced Helicopter Training System (AHTS) Part Task Trainers (PTT)

Description/Summary of Program Requirements

Acquire Cockpit Procedural and Part Task Training devices to train undergraduate Rotary Wing Pilots at NAS Whiting Field FL:

- Cockpit Procedural Training
- Avionics and Flight Management System Familiarization
- Pilot Flight Task Familiarization

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
TBD	2 years	Sep 2020	2 nd Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Brian Hicks	TBD	N/A	M (IF RECOMPETE)
Organization: NAWCTSD, PDA			
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



Modifying and upgrading the software, hardware, and associated components for Naval Flight Officer (NFO) Multi Crew Simulator (MCS). Replace obsolete components in two (2) devices located at Naval Air Station Pensacola FL. Capability improvements include Internet Relay Chat (IRC), improved Internal Communication System (ICS), background radio chatter, JMPS to enhance Fleet-relevant mission planning, datalink enhancements, and enhance graphical user interface for development station. Redesign and replace obsolete components. Migrate from WIN7 to WIN10 Operating System (OS).

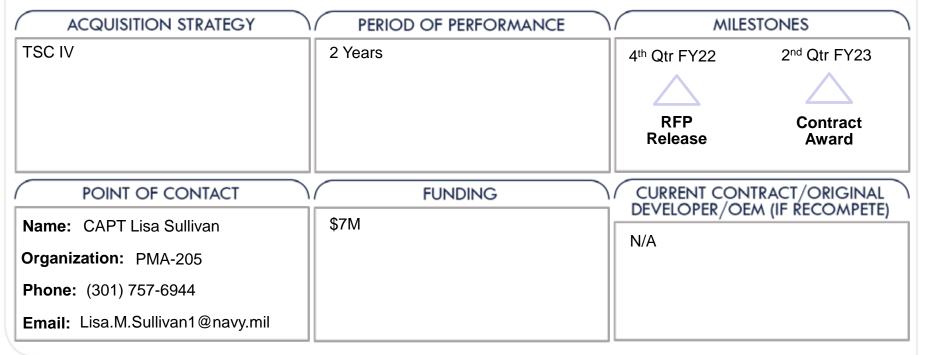
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
TBD	3 Years	4 th Qtr FY21	2 nd Qtr FY22
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: CAPT Lisa Sullivan	\$7.5M		M (IF RECOMPETE)
Organization: PMA-205		CAE	
Phone: (301) 757-6944			
Email: Lisa.M.Sullivan1@navy.mil			



F-16 Technology Refresh

Description/Summary of Program Requirements

Modifying and upgrading the software, hardware, and associated components for F-16 Operational Flight Trainer (OFT) device. Redesign and replace obsolete and noncompliant computation machines and components, and correct performance deficiencies.

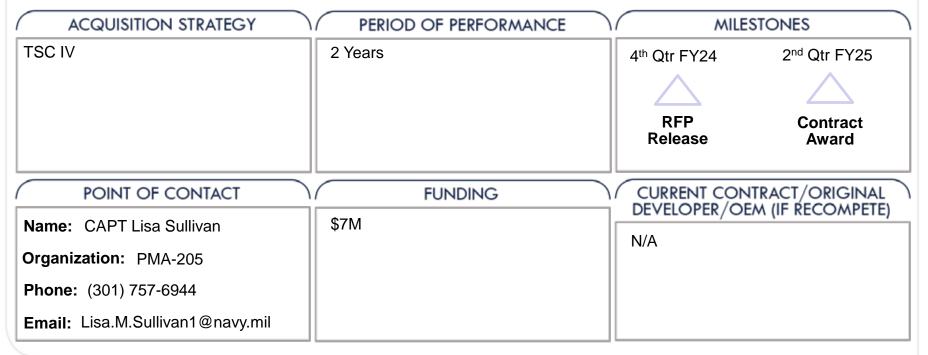




F-5 Technology Refresh

Description/Summary of Program Requirements

Modifying and upgrading the software, hardware, and associated components for F-5 Operational Flight Trainer (OFT) device. Redesign and replace obsolete and noncompliant computation machines and components, and correct performance deficiencies.

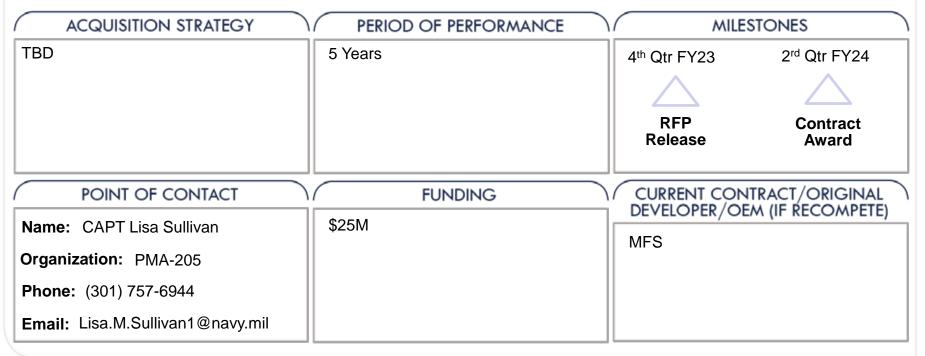




MQ-8 Technology Refresh

Description/Summary of Program Requirements

Modifying and upgrading the software, hardware, and associated components for MQ-8C Mission Control Station and Maintenance Trainers.



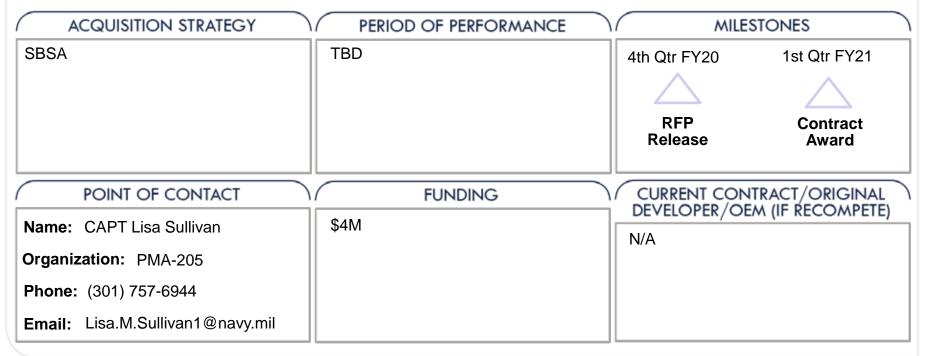




Parachute In-Water Release Trainer Platform Upgrade

Description/Summary of Program Requirements

Device 9F2, Parachute In-Water Release Trainer (referred to as the Drag). This effort is to replace a
pool-side device platform at ASTC Cherry Point, NC with a new platform made of non-corrosive
fiberglass reinforced polymer (FRP).





Helicopter Rescue Hoist Trainer and Parachute Overwater Survival Trainer (POST) Platform Upgrades

Description/Summary of Program Requirements

- Device 9H1, Helo Hoist Platform Upgrade and Device 9F9A, Parachute Overwater Survival Trainer (POST) Platform Upgrade. This effort is to replace 11 pool-side device platforms with new platforms made of non-corrosive fiberglass reinforced polymer (FRP) using Government provided design.
- There are 7 Helo Hoist device platforms to be replaced at ASTC's in: Pensacola, FL; Jacksonville, FL; Cherry Point, NC; Norfolk, VA; Patuxent River, MD; Whidbey Island, WA; & Lemoore, CA.
- There are 5 POST device platforms to be replaced at ASTC's in: Pensacola, FL; Jacksonville, FL; Norfolk, VA; Patuxent River, MD; & Whidbey Island, WA.

Note: The platform structure at ASTC Jacksonville supports both 9H1 and 9F9A devices.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
SBSA	TBD	4th Qtr FY21	1st Qtr FY22
			\land
		RFP Release	Contract Award
	FUNDING	CURRENT CONT	RACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$4M	N/A	M (IF RECOMPETE)
Organization: PMA-205			
Phone: (301) 757-6944			
Email: Lisa.M.Sullivan1@navy.mil			



Marine Corps Training Systems





KC-130J Fuselage Trainer and Observer Training Aid Procurement

Planned contracting approach is to use a follow on Air Force contract to the C/KC/AC/HC-130 Maintenance and Aircrew Training System (JMATS) awarding in late FY21. This contract will be managed by the USAF Simulator Program Office and has been used successfully for USMC KC-130J Training device procurements.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source, FFP New Contract at the SPO Wright Patterson AFB	36 Months	Nov 2021 RFP Release	May 2022 Contract Award
POINT OF CONTACT	FUNDING		RACT/ORIGINAL
Name: Brian Hicks	\$20M	Lockheed Martin	M (IF RECOMPETE)
Organization: NAWCTSD			
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



KC-130J WST and Cockpit Procedures Trainer procurement

Planned contracting approach is to use a follow on Air Force contract to the C/KC/AC/HC-130 Maintenance and Aircrew Training System (JMATS) awarding in late FY21. This contract will be managed by the USAF Simulator Program Office and has been used successfully for USMC KC-130J Training device procurements

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTO	NES
Sole Source, FFP New Contract at the SPO Wright Patterson AFB	36 Months	Feb 2022 RFP Release	Aug 2022 Contract Award
POINT OF CONTACT	FUNDING	CURRENT CONTRA	
Name: Brian Hicks	\$33M	Lockheed Martin	F RECOMPETE)
Organization: NAWCTSD			
Phone: (407) 380-8085			
Email: Brian.Hicks@navy.mil			



C/KC-130T T-56 Series 3.5 Engine Upgrade Training

Description/Summary of Program Requirements

Current C/KC-130T Legacy Simulators in Ft Worth (2F152/2F107/2F176) will require engine performance model updates and aero model updates that reflect new performance parameters of the C/KC-130T aircraft following the T-56 series 3 mod. Additionally, maintenance training devices and aircrew and maintenance courseware updates will be required.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
TSC IV	24 Months	Mar 2022 RFP Release	Oct 2022 Contract Award
POINT OF CONTACT Name: Brian Hicks Organization: NAWCTSD Phone: (407) 380-8085 Email: Brian.Hicks@navy.mil	FUNDING \$4.5M	CURRENT CONTR DEVELOPER/OEM J.F. Taylor Inc.	ACT/ORIGINAL (IF RECOMPETE)



USMC Aviation Distributed Virtual Training Environment (ADVTE) Technical Upgrades and Completion

Description/Summary of Program Requirements

Implement ADVTE at 1st and 4th Marine Aircraft Wing (MAW) Marine Aviation Training System Sites. Effort will also include improvements to existing 2nd and 3rd MAW ADVTE equipment and capability. Includes modernization of the currently fielded ADVTE equipment including Network Exercise Control Centers (NECC), and other "System-of-System" improvements to increase Virtual and Constructive training capability, and increase the number of systems that can connect to conduct distributed mission training capability across USMC ATS training sites.

- Draft SOW and draft PRF released for an Industry Day / Site Visit, conducted 24 October at MCAS Miramar, CA
- Industry one-on-one sessions conducted week of 11 Nov 19
- Updated draft technical information (SOW/SPEC) May 2020 Update to Industry Day Documentation only
- Draft RFP: Expected in Jun 2020 following Data Requirements Review Board (DRRB) intended to include Contract Sections L and M

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	\neg	MILES	TONES
New Contract, Unrestricted Competitive	54 Months	Ju	ıl 2020	Jan 2021
[Not under TSC-IV]		R	RFP Release	Contract Award
POINT OF CONTACT	FUNDING		JRRENT CONT /ELOPER/OEA	RACT/ORIGINAL A (IF RECOMPETE)
Name: CAPT Lisa Sullivan Organization: PMA-205	\$40M		xx Engineering eloper)) Corp. (Original
Phone: (301) 757-6944				
Email: Lisa.M.Sullivan1@navy.mil				



AV-8B Maintenance Trainer Technology Refresh

Description/Summary of Program Requirements

Conduct a Technology Refresh to AV-8B Avionics, Electrical, Armament, Power Plant, Flight Controls, and Landing Gear Maintenance Trainers located at MCAS Cherry Point, NC

No planned industry day

Draft RFP Planned, Date TBD

45 Days planned from RFP release to Proposal due

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	\frown	MIL	estones
TSC VI: Restricted to Small Business	24 Months		Jul 2020	Dec 2020
Based on Market Research Analysis			\bigtriangleup	\bigtriangleup
			RFP Release	Contract Award
	FUNDING		CURRENT COI	NTRACT/ORIGINAL
Name: CAPT Lisa Sullivan	\$3.5M			ious Mod Contractor)
Organization: PMA-205			- , - , - , - , - , - , - , - , - , - ,	,
Phone: (301) 757-6944				
Email: Lisa.M.Sullivan1@navy.mil				



AV-8B Weapons System Trainer (WST) / Deployable Mission Rehearsal Trainer (DMRT) Operational Flight Program Upgrade

Description/Summary of Program Requirements

Assess and implement OFP Upgrades (H6.2, H7.0, H7.1) into WST and DMRT Trainers to reflect concurrent OFP/operational capabilities with AV-8B Aircraft

- Market Research Sources Sought Notice posted and responses received.
- 1/14/2020: Market Research Sources Sought Responses have evaluated

No planned industry day

Draft RFP Planned, Date TBD

45 Days planned from RFP release to Proposal due

ACQUISITION STRATEGY	PERIOD OF PERFC		MI	LESTONES
TSC IV: Restricted to Small Business	24 Months		Aug 2020	Jan 2021
Based on Market Research Analysis			\bigtriangleup	\bigtriangleup
			RFP Release	Contract Award
POINT OF CONTACT	FUNDING	;		ONTRACT/ORIGINAL DEM (IF RECOMPETE)
Name: CAPT Lisa Sullivan	\$7.5M	Γ	LSI (OEM)	JEM (IF RECOMPETE)
Organization: PMA-205				
Phone: (301) 757-6944				
Email: Lisa.M.Sullivan1@navy.mil				



AH-1Z and UH-1Y (H-1) Mission Rehearsal Trainer (MRT)

Description/Summary of Program Requirements

The H-1 MRT will bridge a gap in deployed training capabilities by providing pilot and aircrew a deployable mission rehearsal device.

The scope of this effort is to provide multiple AH-1Z and UH-1Y ("H-1") Mission Rehearsal Trainers (MRT) that will improve aircrew operational training and readiness, and reduce operational risk.

The H-1 MRT is envisioned to be a smaller footprint part-task-trainer with a visual system, simulated aircraft cyclic/collective/pedals and touchscreen interfaces for key aircraft systems such as the Multi and Dual-Function Displays (M/DFD), aircraft Keyboard, and weapon and countermeasure systems. Desired objective is to procure up to 12 H-1 MRTs through the NAVAIR Other Transaction Authority (OTA) in Pax River, MD. Process will start with a request for white papers to address H-1 MRT needs. Gov't will review the white papers and select one contractor to assist in finalizing the Statement of Work (SOW), leading up to the contract award planned for November 2020 for the first H-1 MRT device. Award of subsequent MRT devices may or may not occur at a later date.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Other Transaction Authority (OTA)	32 to 48 Months	Aug 2020	Nov 2020	
		RFP Release	Contract Award	
POINT OF CONTACT	FUNDING	CURRENT CONT DEVELOPER/OE	TRACT/ORIGINAL M (IF RECOMPETE)	
Name: CAPT Lisa Sullivan	\$ 14M (includes all potential devices)	New Device		
Organization: PMA-205				
Phone: (301) 757-6944				
Email: Lisa.M.Sullivan1@navy.mil				



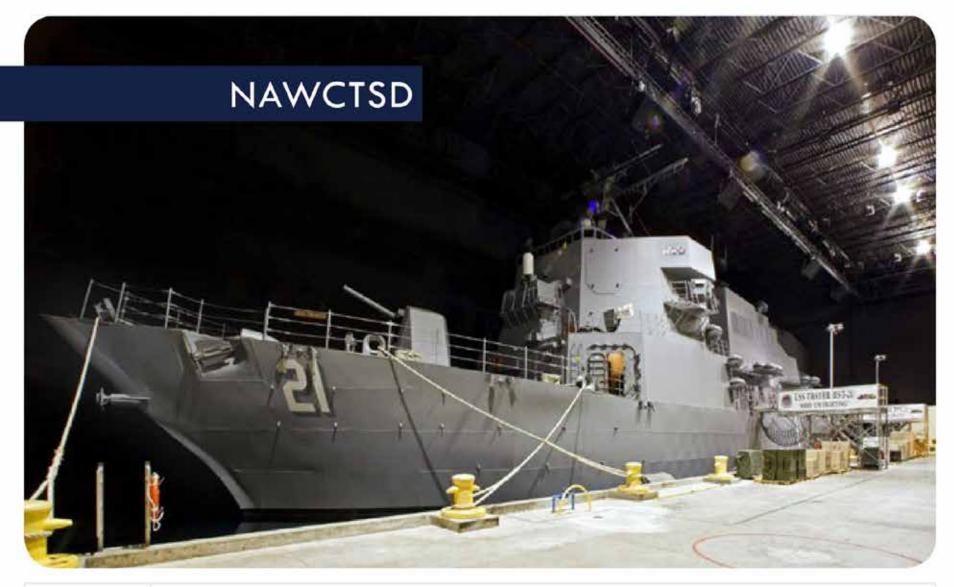
USMC Tactical Environment Technical Upgrades and Completion (TEn) (TUC)

Description/Summary of Program Requirements

Implement improvements and complete the USMC TEn to connect and implement/integrate/deliver a common TEn software and hardware baseline across all MC ATS (1st, 2nd, 3rd, and 4th Marine Aircraft Wing (MAW)) Marine Aviation Training System Sites (MATSS).

- Two contract actions under this overall effort.
- Contract Action 1: Limited TEn software changes driven by current high priority AV-8B / H-1 platform training requirements
- Contract Action 2: Modify, upgrade, enhance, install, integrate the TEn baseline driven by Platform and ADVTE Requirements. This effort will complete and rebaseline the TEn across all ATS training devices that use the TEn, Including NASMP and DIS bridges
- PPC Planned for July 2020 will finalize Contract Approach for Contract Actions 1 & 2

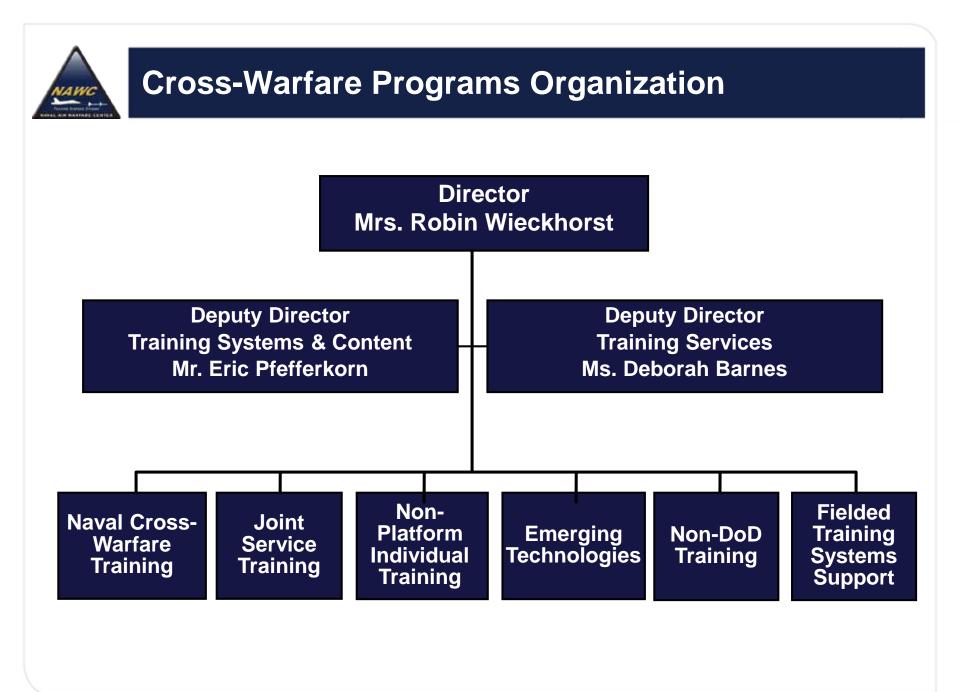
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILEST	ONES
Contract Action 1: New Contract [Not under TSC-IV] Contract Action 2: New Contract [Not under TSC-IV] Contract Approach not yet approved	Delivery Period #1: 30 Months Delivery Period #2: 45 Months	#1: Sep 2020 #2: Mar 2021 RFP Release	#1: Dec 2020 #2: Jul 2021 Contract Award
	FUNDING	CURRENT CONTR DEVELOPER/OEM	RACT/ORIGINAL
Name: CAPT Lisa Sullivan Organization: PMA-205	#1: \$.8M #2: \$30M	Veraxx Engineering Delveloper)	
Phone: (301) 757-6944 Email: Lisa.M.Sullivan1@navy.mil			





Robin Wieckhorst

Director, Cross-Warfare Programs





Cross-platform contract supporting multiple U.S. Navy programs to stand up/refresh U.S. Navy IT systems (e.g. classrooms, labs, part-task trainers, etc.,) while maximizing the re-use of an Information Technology (IT) common hardware baseline. Support will include procure hardware from a common IT baseline, install software (including OSs), integrate IT systems, test, and deliver fully functional IT systems.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
SBSA IDIQ	3 Yrs	Released	Sep 20
Sole Source 8(a) Alaska Native Corporation (ANC)		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$50M	N/A	M (IF RECOMPETE)
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Provides contractor operation, maintenance and instruction for Improved Navy Lighterage System (INLS) craft. The contractor provides classroom and at-sea, high risk instruction and maintenance for the INLS operational craft.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Sole Source	5 Years	3rd Qtr FY22	2nd Qtr FY23	
			\bigtriangleup	
		RFP Release	Contract Award	
	FUNDING	CURRENT CONT		
Name: Mrs. Robin Wieckhorst	\$25M	Pacific Architects a		
Organization: Cross-Warfare Programs				
Phone: 407-380-4214				
Email: robin.wieckhorst@navy.mil				



NAWCTSD Competencies and Program Directorates require Contractor Support Services (CSS) to assist in the acquisition and management of Navy training systems. Required disciplines include engineering, instructional systems, program management, logistics, public affairs, and financial analysis. The CSS requirements are for temporary augmentation of the NAWCTSD workforce. The CSS are required throughout the acquisition life cycle, from concept refinement through operation and support.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
SBSA WOSB	5 Yrs	Released	Jul 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$110M	Zenetex	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			

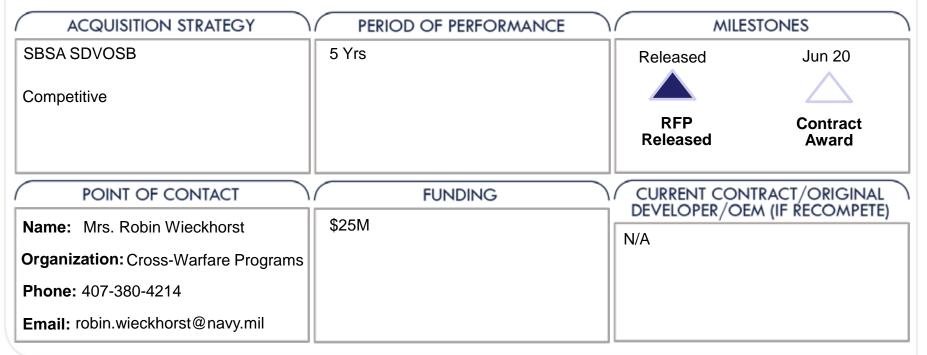


Multiple Award Contract (MAC) vehicle to provide task orders for Contractor Operation and Maintenance Services (COMS) and Contractor Instructional Services (CIS) and associated services for USN/USMC units. Covers recurring FTSS sustainment requirements for primarily COMS and CIS. Ancillary FTSS services include but are not limited to: training device relocations, training systems management, minor modification support, and in-service engineering support. Supports aviation and non-aviation customers.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
MAC with Unrestricted Lot 1 and a SBSA Lot 2	5 Yr base ordering period plus 3 1-Yr Options	2nd Qtr 21	4th Qtr 21
Competitive			
		RFP Release	Contract Award
		CURRENT CONT DEVELOPER/OEA	RACT/ORIGINAL A (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst Organization: Cross-Warfare Programs	\$1.0B ceiling	Multiple: 9 FTSS IV contractors	/ Lot I MAC
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Chief of Naval Air Training Command (CNATRA) requires contractor services, supplies and tasks for the operation and support of the United States Navy (USN) Naval Introductory Flight Evaluation (NIFE) program. NIFE training will be conducted in the NAS Pensacola, FL area.





Labor, equipment, training facilities, supervision and other services necessary for training of aircrew personnel of the Navy's C-26D (Navy configured Metroliner SA-227 aircraft) pilot training. This contract supports training for the Commander Naval Air Force, U.S. Atlantic and Pacific Fleets (CNAP and CNAL).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Sole Source	5 Yrs	Released	Jun 20	
		RFP Release	Contract Award	
	FUNDING	CURRENT CONT DEVELOPER/OEA	RACT/ORIGINAL	
Name: Mrs. Robin Wieckhorst Organization: Cross-Warfare Programs	\$3M	Flight Safety Intern	ational (FSI)	
Phone: 407-380-4214				
Email: robin.wieckhorst@navy.mil				



Labor, equipment, training facilities, supervision and other services necessary for training of aircrew personnel of the UC-35C (Navy configured Cessna Citation V ULTRA/CE-500-560) and UC-35D (a Navy configured Cessna Citation V ENCORE/CE-500-560) pilot training. This contract supports training for various commands.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Sole Source	6 Yrs	Jun 20	4th Qtr FY20	
			\bigtriangleup	
		RFP Release	Contract Award	
	FUNDING	CURRENT CON DEVELOPER/OF	ITRACT/ORIGINAL	
Name: Mrs. Robin Wieckhorst	\$10M	Flight Safety Inter	rnational (FSI)	
Organization: Cross-Warfare Programs				
Phone: 407-380-4214				
Email: robin.wieckhorst@navy.mil				



Labor, equipment, supervision and other services, necessary to provide pilot training for the Navy T-44C ProLine 21(PL21) aircraft. The T-44C is a Navy configured Raytheon/Beechcraft King Air C-90 with a modified ProLine 21 avionics suite.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Sole Source	5 Yrs	Jun 20	4th Qtr FY20
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$50M	CAE USA	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Labor, equipment, training facilities, supervision and other services, necessary to provide organizational level maintenance training for the C-40A (Navy configured Boeing 737-700C Increased Gross Weight [IGW] aircraft).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Full and Open	5 Yrs	Aug 20	1st Qtr FY21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	ITRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$5M	Delta Airlines	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Pilot & Aircrew Courseware Revision and Maintenance (PACRM)

Description/Summary of Program Requirements

Indefinite Delivery/Indefinite Quantity (IDIQ) Multiple Award Contract (MAC) with Firm-fixed-price (FFP) and Cost-plus-fixed-fee (CPFF) components to support of ongoing requirement to procure Pilot and Aircrew Courseware Revision and Maintenance (R&M) services for Navy and Marine Corps' Training Programs.

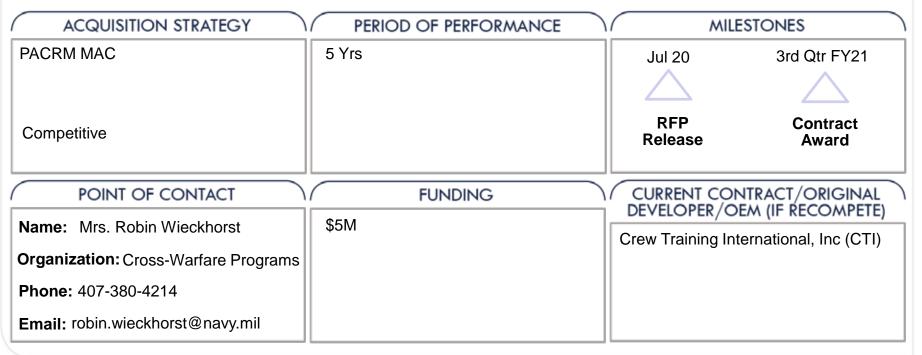
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
SBSA MAC	5 Yr Base with two 1 Yr options	Jul 20	3rd Qtr FY21
			\bigtriangleup
Competitive		RFP Release	Contract Award
	FUNDING		NTRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$90M ceiling	N/A	EM (IF RECOMPETE)
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Pilot and Aircrew Courseware R&M E-2 / C-2 / Landing Signal Officer

Description/Summary of Program Requirements

Revision and Maintenance (R&M) of E-2, C-2, and Landing Signal Officer (LSO) Fleet Readiness Squadron (FRS) and Weapons School Pilot and Aircrew courseware, located at NAS Oceana, VA.





Revision and Maintenance (R&M) of curriculum, to include support of Electronic Classrooms (ECR), Learning Resource Centers (LRC), network systems, and Foreign Military Sales (FMS) in support of USN / USMC training located at MCAS Cherry Point, NC (VMAT-203, VMU FRD, KC-130 FRD), MCAS New River, Jacksonville, NC, (HMHT-302), NS Norfolk, VA (HM-12, HSCWSL), MCAS Camp Pendleton, CA (HMLAT-303), MCAS Beaufort, SC (MATSS) and MCAS Miramar, CA (MATSS).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
PACRM MAC	5 Yrs	1st Qtr FY22	2nd Qtr FY22
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$15M		ernational, Inc (CTI)
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Revision and Maintenance (R&M) of curriculum, to include support of Electronic Classrooms (ECR), Learning Resource Centers (LRC), network systems, Foreign Military Sales (FMS) and Cooperative Projects in support of Maritime Patrol and Reconnaissance Aircrew Training Programs located at NAS Jacksonville, FL. Patrol Squadron Thirty (VP-30) and Maritime Patrol and Reconnaissance Weapons School (MPRWS).

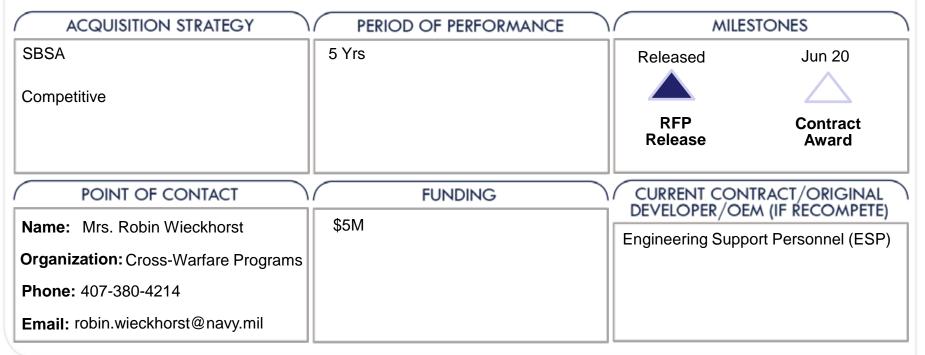
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	\sum	MIL	ESTONES
PACRM MAC	5 Yrs		4th Qtr FY22	1st Qtr FY23
			\square	\wedge
Competitive			RFP	Contract
			Release	Award
(POINT OF CONTACT)	/ FUNDING	71	CURRENT CO	NTRACT/ORIGINAL) DEM (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$10M	١r	A. Harold and As	
Organization: Cross-Warfare Programs				Sociales, Al IA
Phone: 407-380-4214				
Email: robin.wieckhorst@navy.mil				



Naval Aviation Survival Training Program COMS

Description/Summary of Program Requirements

Contractor Operation and Maintenance Services (COMS) on behalf of Commander, Bureau of Medicine and Surgery (BUMED) to support Naval Aviation Survival Training Program (NASTP) training devices and requirements at NAS Jacksonville, FL, NS Norfolk, VA and MCAS Cherry Point, NC.





Contractor Operation and Maintenance Services (COMS) and Contractor Instructional Services (CIS) on behalf of Commander, Naval Air Forces Atlantic (CNAL) and Pacific (CNAP), and Center for Naval Air Technical Training (CNATT) to support USMC AV-8B, KC-130, MV-22, CH-53E, UH-1, CH-53K, AH-1, and MAWTS training devices and requirements at MCAS Cherry Point, NC, MCAS New River, NC, MCAS Yuma, AZ, Camp Pendleton, CA, and MCAS Miramar, CA.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MIL	estones
FTSS IV	5 Yrs	Jun 20	1st Qtr FY21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CO	NTRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$125M	Valiant Global D	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



F/A-18 COMS/CIS

Description/Summary of Program Requirements

Contractor Operation and Maintenance Services (COMS) and Contractor Instructional Services (CIS) on behalf of Commander, Naval Air Forces Atlantic (CNAL) and Pacific (CNAP), and Center for Naval Air Technical Training (CNATT) for F/A-18 training at NAS Oceana, VA, MCAS Beaufort, SC, MCAS Miramar, CA, NAS Lemoore, CA, NAS Whidbey Island, WA and CIS for EA-18G at NAS Whidbey Island, WA and F/A-18 at NAS Lemoore, CA and MCAS Miramar, CA.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
FTSS IV	5 Yrs	Jul 20	2 nd Qtr FY21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$110M	Valiant Integrated	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Contractor Instructional Services (CIS) on behalf of Commander, Naval Air Forces Atlantic (CNAL) to support training devices and requirements at NS Norfolk, VA, NAS Jacksonville, FL, NS Mayport, FL, and NAS Oceana, VA. Support may include: E-2C/D, MH-53E, H-60, F/A-18, P-3, P-8, MQ-4, and MQ-8.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
FTSS IV	5 Yrs	1st Qtr FY21	3rd Qtr FY21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$90M	LB&B	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



CNATRA COMS

Description/Summary of Program Requirements

Contractor Operation and Maintenance Services (COMS) on behalf of Chief of Naval Air Training (CNATRA) simulators and other training devices. These devices are on site in government facilities at the following locations: NAS Meridian, MS – Training Air Wing ONE, NAS Kingsville, TX – Training Air Wing TWO, NAS Corpus Christi, TX – Training Air Wing FOUR, NAS Whiting Field, Milton, FL – Training Air Wing FIVE, and NAS Pensacola, FL – Training Air Wing SIX.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
FTSS IV	5 Yrs	3rd Qtr FY21	1st Qtr FY22
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mrs. Robin Wieckhorst	\$40M	Fidelity Technolog	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Maritime COMS

Description/Summary of Program Requirements

Contractor Operation and Maintenance Services (COMS) on behalf of Commander, Naval Air Forces Atlantic (CNAL) and Pacific (CNAP), and Center for Naval Air Technical Training (CNATT) to support P-3C, EP-3E, MQ-4 and P-8A training devices and requirements at NAS Jacksonville, FL and NAS Whidbey Island, WA.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
FTSS IV	5 Yrs	1st Qtr FY22	3rd Qtr FY22
Competitive			\bigtriangleup
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING	CURRENT CON	TRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$80M	LB&B	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Contractor Operation and Maintenance Services (COMS) and Contractor Instructional Services (CIS) on behalf of Center for Naval Aviation Technical Training (CNATT) to support Naval Aviation Technical Training Center (NATTC) training devices and requirements at NAS Pensacola, FL and Joint Base Maguire/Dix/Lakehurst, NJ.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
FTSS V, Lot 2 SBSA	5 Yrs	3rd Qtr FY22	1st Qtr FY23
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		
		DEVELOPER/OI	ITRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$15M	Engineering Supp	oort Personnel (ESP)
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Contractor Instructional Services (CIS) to be performed in support of Chief of Naval Air Training (CNATRA) student throughput requirements. These services are performed on site in government facilities at the following locations: NAS Meridian, MS – Training Air Wing ONE, NAS Kingsville, TX – Training Air Wing TWO, NAS Corpus Christi, TX – Training Air Wing FOUR, NAS Whiting Field, Milton, FL – Training Air Wing FIVE, and NAS Pensacola, FL – Training Air Wing SIX.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
FTSS V Lot 1	5 Yrs	3rd Qtr FY22	2nd Qtr FY23
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)	
Name: Mrs. Robin Wieckhorst	\$140M	CAE, USA, Inc.	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Western Pacific (WESTPAC) COMS/CIS

Description/Summary of Program Requirements

Contractor Operation and Maintenance Services (COMS) and Contractor Instructional Services (CIS) on behalf of Commander, Naval Air Forces Pacific (CNAP) to support F/A-18, KC-130J, MV-22B, E-2D, H-60, H-53, H-1, and P-3 training devices and requirements at Okinawa, Atsugi, Kadena, and Iwakuni, Japan and at MCB Kaneohe, Hawaii.

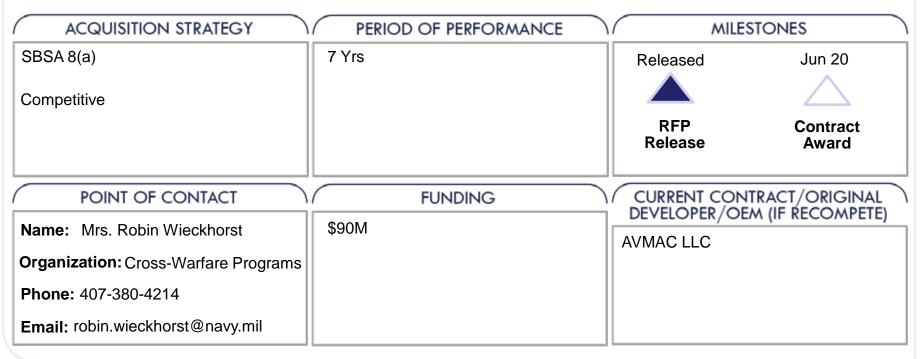
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
FTSS V Lot 1	5 Yrs	4th Qtr FY22	2 nd Qtr FY23
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$15M		ort Personnel (ESP)
Organization: Cross-Warfare Programs			, , , , , , , , , , , , , , , , , , ,
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Fleet Readiness Center East (FRCE) Depot Level Maintenance (DLM)

Description/Summary of Program Requirements

NAWCTSD contracts for a workforce of 35 - 45 annual workyears to support aircraft, aircraft engines, and associated components/material that are undergoing Depot Level Maintenance (DLM) at FRCE Cherry Point and MCAS New River. Weapons Systems include: H-1, H-46, H-53, V-22, AV-8, F/A-18, F-35, EA-6B. Engines include: F402, T58, T64, T400, T700, and GE-38.





Fleet Readiness Center Southeast (FRCSE) Production Support Services (PSS)

Description/Summary of Program Requirements

Production Support Services (PSS) in support of Depot Level Maintenance (DLM) at FRCSE and its supported areas which includes Production Control, Warehouse Specialist, Transportation, Supply Technician, Stock Clerk, and Tools and Parts Attendant (TPA) services.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
SBSA	6 Yrs	Jun 20	4th Qtr FY20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON	ITRACT/ORIGINAL
Name: Mrs. Robin Wieckhorst	\$55M	ProLog	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			

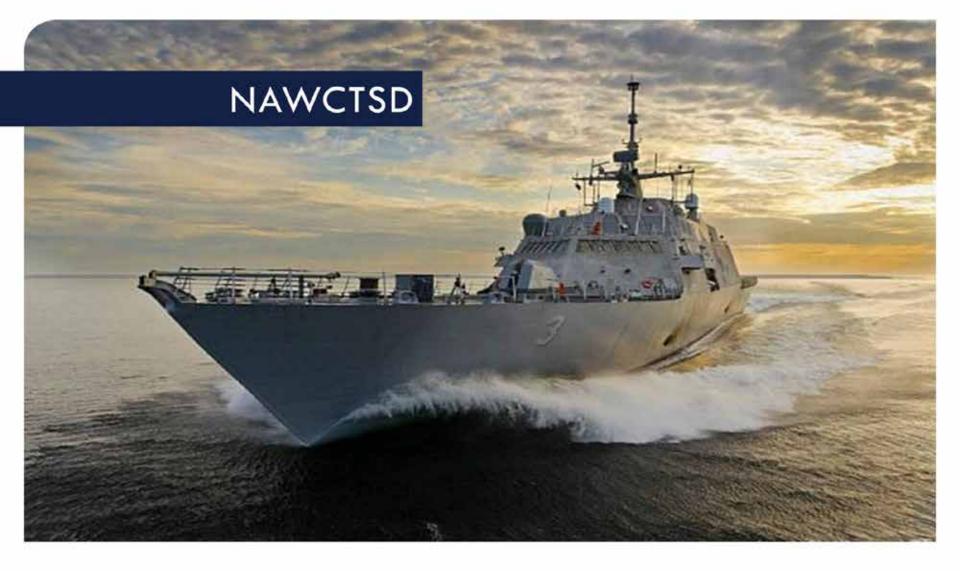


Fleet Readiness Center East (FRCE) Engineering Support Services (ESS)

Description/Summary of Program Requirements

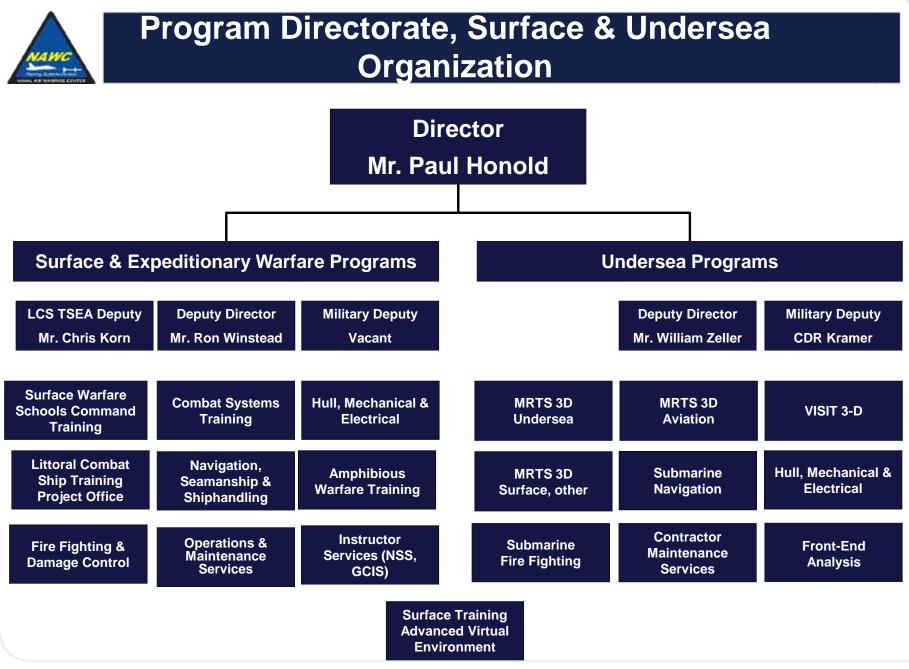
Engineering Support Services (ESS) at FRCE and its supported areas provides the full range of engineering support for aircraft, engines and support systems, and development of engineering data, Technical Directives (Bulletins, Changes, etc.), Technical Manuals, Drawings, and Engineering Investigations.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
SBSA	5 Yrs	Sep 20	3 rd Qtr FY21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE	
Name: Mrs. Robin Wieckhorst	\$35M	LTM Inc.	
Organization: Cross-Warfare Programs			
Phone: 407-380-4214			
Email: robin.wieckhorst@navy.mil			



Paul Honold

Director, Surface and Undersea Warfare Programs





Single Award Indefinite Delivery/Indefinite Quantity Contract (ID/IQC) for fielding of new virtual system simulation products and interactive courseware as well as the continued lifecycle support of existing systems. Current devices include Navigation System Maintenance Trainer, Hull Mechanical & Electrical Training Devices, Foreign Military Sales Device 14A12 Japan Anti-Submarine Warfare (ASW) Team Trainer and Littoral Combat Ship (LCS) Immersive Virtual Shipboard Environment (IVSE) Courseware. Currently under protest.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Full & Open	5 Year Ordering Period	Released	July 20
Competitive			\bigtriangleup
		RFP Released	Contract Award
	FUNDING	CURRENT CONT DEVELOPER/OEM	
Name: Mr. Paul Honold	\$99M	Alion, Cubic	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



AEGIS Ashore Team Trainer (AATT) Ballistic Missile Defense (BMD) 5.1 Build 24.0.6.3 and Build 35 – Phase II

Description/Summary of Program Requirements

Design, develop, integrate, test and deliver, AATT BMD 5.1 Build 24.0.6.3 and Build 35 capabilities to support AEGIS Ashore Missile Defense System (AAMDS) watch team BMD qualification and certifications requirements conducted at CSCS Dam Neck VA. Scope will include simulation software development/modification, AEGIS baseline 9B updates, and configuration management. A phased contract approach will be implemented:

Phase I – Requirements Analysis Working Groups

Phase II – Deliver BMD 5.1 Build 24.0.6.3 and Build 35 Enhancement

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	24 Months	Feb 20	Jun 20 (PH II)
		RFP Released	Contract Award
	FUNDING		RACT/ORIGINAL A (IF RECOMPETE)
Name: Mr. Paul Honold	\$8M	Lockheed Martin	(IF RECOMPETE)
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



AEGIS Ashore A3C4I BMD 5.1 Build 24.0.6.3 and Build 35 Training Enhancement – Phase II

Description/Summary of Program Requirements

Design, develop, integrate, test and deliver, AEGIS Ashore Assured Command, Control, Communications, Computers and Intelligence (A3C4I) – Ballistic Missile Defense (BMD) 5.1 Build 24.0.6.3 and Build 35 Training Upgrade, to support AEGIS Ashore Missile Defense System (AAMDS), A3C4I personnel training. A3C4I is a subsystem of the AEGIS Ashore Team Trainer, Device 20F27. This is a PC-based Open-architecture for Reconfigurable Training Systems (PORTS) simulation application. A phased contract approach will be implemented:

Phase I – Requirements Analysis Working Group

Phase II – A3C4I BMD 5.1 Build 24.0.6.3 and Build 35 Enhancement

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	24 Months	Feb 20	Jun 20 (PH II)
			\bigtriangleup
		RFP Released	Contract Award
	FUNDING	CURRENT CONT DEVELOPER/OEM	
Name: Mr. Paul Honold	\$3M	Northrop Grumman	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



PORTS ID/IQ Contract

Description/Summary of Program Requirements

Single Award Indefinite Delivery/Indefinite Quantity Contract (ID/IQC) for award of multiple Delivery Orders through the period of performance for the support of the PC-Based Open Architecture Reconfigurable Training Systems (PORTS). This will be the follow-on contract vehicle to replace the existing PORTS ID/IQC and includes the Multi-Mission Team Trainers. Scope will include simulation software development and modification, related instructional content development, hardware technical refresh, new training systems, configuration management, performance monitoring and evaluation, intelligent tutoring, and other actions as specified.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Sole Source	5 Year Ordering Period	May 20	June 20	
		RFP Released	Contract Award	
POINT OF CONTACT	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL M (IF RECOMPETE)	
Name: Mr. Paul Honold Organization: PDS&U	\$67M available ceiling \$5M on DO #1	Northrop Grumma	n	
Phone: 407-380-4160				
Email: paul.honold@navy.mil				



PORTS ID/IQC DO #2

Description/Summary of Program Requirements

Delivery Order #2 on the PORTS ID/IQC providing for work in support of the Multi-Mission Tactical Trainer (MMTT), a new Anti-Submarine Tactical Air Controller (ASTAC) trainer, Tactical Data Link (TDL) trainer requirements, Air Intercept Controller (AIC) training, and potentially the Naval Surface Fire Support (NSFS) trainer.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	1-2 years	July 20	Sept 20
		RFP Release	Contract Award
	FUNDING	CURRENT CONTR DEVELOPER/OEM	
Name: Mr. Paul Honold	TBD	Northrop Grumman	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Replace obsolete smoke generation systems for the family of Navy Surface Fire Fighting Trainers to current industry standard technology. Removal of deteriorating Aqueous Film Forming Foam (AFFF) components and systems, which are no longer a training requirement. Replace current degraded Non-Skid throughout the Damage Control Wet Trainers (DCWT) for Newport, RI, San Diego, CA and Norfolk, VA to comply with safety requirements for Non-Skid. Also includes removal and replacement of deteriorated Watertight Hatches and Scuttles for Norfolk, VA, San Diego, CA and Newport, RI Wet Trainers.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
TSC IV SBSA	5 years (includes base devices and	Nov 19	June 20
Competitive	options)		\bigtriangleup
		RFP Released	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	\$1.5M	N/A	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Surface Navy Curriculum Modernization and Analysis IDIQ

Description/Summary of Program Requirements

Single Award Indefinite Delivery/Indefinite Quantity Contract (ID/IQC) to create and modernize surface mission area curricula to include Combat Systems; Hull, Mechanical & Electrical (HM&E); Firefighting and Damage Control; Navigation, Seamanship & Shiphandling; Deck and Amphibious Warfare. Scope to include Curriculum/courseware new development, update and revision for instructor-led (Authoring Instructional Material - AIM/Content Planning Module -CPM/Learning Objective Model - LOM) and Computer Based Training courseware. Computer-Based Training (CBT)/Interactive Courseware (ICW) development, update, and revision in accordance with NETC E2E Process, and OPNAV/NETC Front End Analysis (FEA) products.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
WOSB Set Aside	5 Year Ordering Period	Nov 19	August 20
Competitive			\bigtriangleup
		RFP Released	Contract Award
	FUNDING		TRACT/ORIGINAL
Name: Mr. Paul Honold	\$49M	N/A	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Navigation Seamanship Shiphandling Contractor Instructor Services (NSS CIS)

Description/Summary of Program Requirements

Performance-based contract to provide instructor services for NSS related courses, provide curriculum updates and to serve as subject matter experts for NSS topics within the Surface Warfare Enterprise. This re-compete will address the requirements of Surface Warfare Schools Command in all major fleet concentration areas. There are a total of 12 sites. Re-compete required due to significant increase and change in requirements from previously awarded contract.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
FTSS IV	5 Years	May 20	August 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		NTRACT/ORIGINAL EM (IF RECOMPETE)
Name: Mr. Paul Honold Organization: PDS&U	ТВD	LB&B	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			

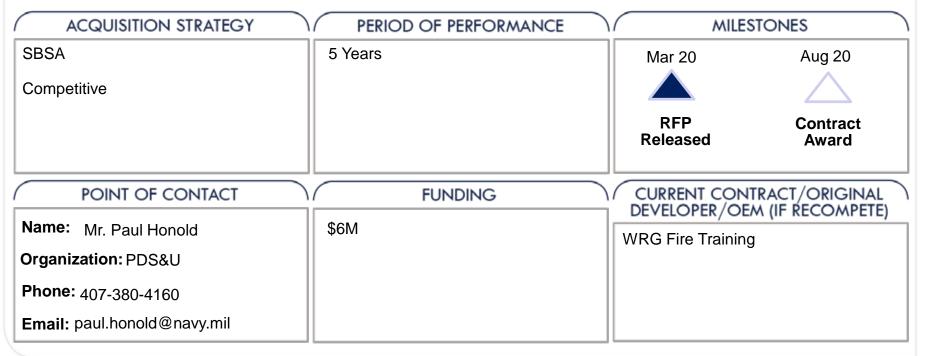


Previously titled Global Contractor Instructor Services. Performance-based contract to provide instructor services to augment military instructors for engineering and damage control related courses, provide curriculum updates and to serve as subject matter experts for various surface and expeditionary warfare training systems within the Surface Warfare Enterprise. This re-compete will address the requirements of Surface Warfare Schools Command at all major fleet concentration areas.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
SDVOSB	5 Years	Aug 20	Feb 21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL A (IF RECOMPETE)
Name: Mr. Paul Honold Organization: PDS&U	TBD	Prevailance Inc.	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Contract to provide turnkey (courses and facilities) for live-fire Fire Fighting and Damage Control Training courses(s) for Navy and Coast Guard personnel stationed in the Pacific Northwest (PACNORWEST) Fleet Concentration Area (FCA), in the Seattle, WA area.





Acquire SSC training solutions in support of PMS377 new craft deliveries to replace Landing Craft Air Cushioned vehicles. Training solutions required for SSC Crew Operations and Maintenance Training comprised of Instructor Lead Training, Electronic Classrooms, Virtual and Full Mission Trainers to support training of Co-Pilots, Flight Engineer, Loadmaster, Deck Engineers, C4N, Electrical, Propulsion, Structural, Crew Familiarization and Crew Advanced Qualification Training. Analysis of potential training solutions and options. Base award projected to include Advanced Qualification Training Device and Operations Course.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
TSC IV SBSA	3 years	Oct 20	Mar 21
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	\$30M (thru FY23)	N/A	M (IF RECOMPETE)
Organization: PDS&U	Base: \$10M		
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Riverine Small Boat Trainers

Description/Summary of Program Requirements

Previously titled NECC Multi-Boat Simulators. Acquire training solutions for new reconfigurable boat simulator (MK VI and Patrol Boat 40) in support of Coastal Riverine Force training of Visit, Board, Search, and Seizure (VBSS), Security force assistance (SFA), High value unit (HVU) shipping escort and Theater security cooperation (TSC). Emphasis of the training will be on requirements associated with the bridge crew, including the conduct of multi-boat maneuvers, navigation, and weapons engagement. Base award planned for PB-40 only.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
TSC IV SBSA	20 Months for Base award	July 20	Dec 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		ITRACT/ORIGINAL
Name: Mr. Paul Honold	\$20M	N/A	
Organization: PDS&U	Base: \$5M		
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Littoral Combat Ship (LCS) Virtual Ship Training System (VSTS) Virtual Reality Labs (VRL)

Description/Summary of Program Requirements

Procure, install, and integrate equipment to complete installation of 10 additional CLASSIFIED/ UNCLASSIFIED Virtual Reality Labs and two (2) CLASSIFIED/UNCLASSIFIED Brief/De-Brief rooms at the Littoral Training Facility, located on Naval Station Mayport, FL. Additionally, procure and install equipment to complete installation of one (1) UNCLASSIFIED VRL on Jacksonville Executive at Craig Airport (KCRG).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
GSA Schedule 70	2 Years	Jun 20	Jul 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Mr. Paul Honold	\$6.5M	Triton Joint Venture	
Organization: PDS&U			5 (01) 220
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Effort to update Mission Bay Trainer assets at the LCS Training Facilities in San Diego and Mayport. Scope to include launch and recovery of the Knifefish and Unmanned Influence Sweep System (UISS) vehicles, line-zeroing function, and Windows 10 upgrade to system. Effort includes build, install, test, document and delivery as applicable.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
TSC IV SBSA	TBD	June 20	Sept 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CONT DEVELOPER/OEM	
Name: Mr. Paul Honold	\$2M		
Organization: PDS&U		Cubic	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



7M/11M RIB Coxswain Simulator Trainer

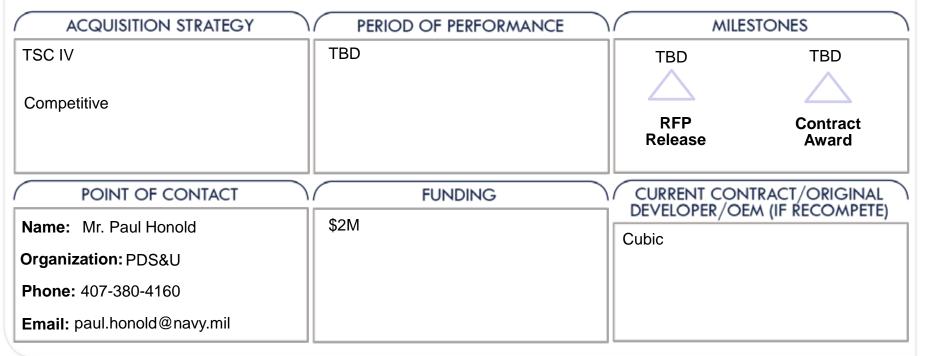
Description/Summary of Program Requirements

Effort to create coxswain simulator trainer at facilities in Coronado, California, Mayport, Florida, and Little Creek, Virginia to replace current outdated trainer. Scope to include multiple desktop simulators, one 240-degree immersive simulator, various small-boat operations, and realistic feedback for students. Effort includes build, install, test, document and delivery as applicable. Market research currently on-going as well as development of RFP documentation. Schedule for RFP release is on-hold pending resolution of funding.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
TBD	TBD	TBD	TBD
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	TBD	N/A	
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Effort to create and modernize Mission Bay Trainer assets at the LCS Training Facilities in San Diego, and Mayport. Scope to include updates to cyber security, ordnance hoists, simulators, haptic devices, small boats, vehicle cradles, and cranes as required. Effort includes build, install, test, document and delivery as applicable. RFP release is on hold pending resolution of funding.





ET "A" School Naval Communications Trainer

Description/Summary of Program Requirements

Design, develop, test and deliver, Navy Command, Control, Communications, Computer and Intelligence (C4I) simulated equipment for training Electronic Technician (ET) "A" School students in the operations of Naval communications equipment at Naval Station Great Lakes.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	TBD	2 nd Qtr FY21	4th Qtr FY21
SBIR Phase III, JHT Inc			\bigtriangleup
		RFP Released	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	\$3M	N/A	M (IF RECOMPETE)
Organization: PDS&U		N/A	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



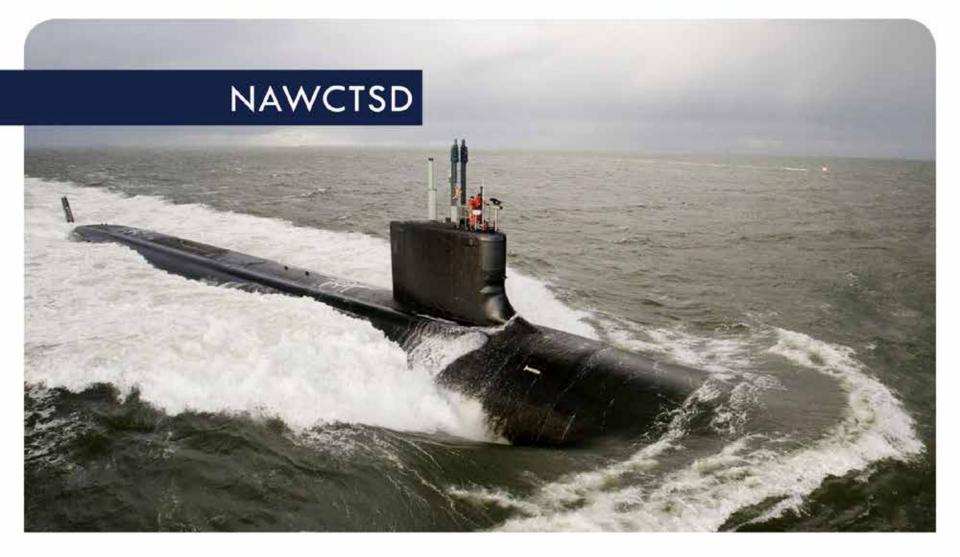
Procure and deliver Navigation Training devices to Norfolk, Pearl Harbor, Everett, Rota, & Temporary Yokosuka Facility. Devices requirements: Bridge/Command Information Center (CIC) Team, Bridge Team, Bridge Watchstander, Senior Navigator Officer of the Deck (OOD), Junior Navigator OOD, Radar Navigation Team.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole source delivery order	TBD	July 20	Nov 20
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Mr. Paul Honold	\$57M	GDIT	M (IF RECOMPETE)
Organization: PDS&U			
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Single Award Indefinite Delivery/Indefinite Quantity Contract (ID/IQC) for fielding of new Navigation Seamanship Shiphandling Trainers (NSSTs). Part task, Individual, Team Trainers in support of TYCOM, SWTSC and CSCS Training stakeholders. Trainer types include full Bridge/CIC Team, Bridge Team, Individual Senior Navigator Officer of the Deck (OOD), Individual Junior OOD, Radar Navigation Team, and Small Boat Rigid Hull Inflatable Boat (RHIB) operator.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Full & Open	5 Year Ordering Period	4 th Qtr FY21	2nd Qtr FY22
Competitive		\bigtriangleup	\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	TBD	GDIT	M (IF RECOMPETE)
Organization: PDS&U		GDH	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			





Paul Honold

Director, Surface & Undersea Programs



Single Award IDIQ to provide computer models, applications, and other digital content for Multipurpose Reconfigurable Training System 3D[®] (MRTS 3D[®]), Virtual Interactive Shipboard Instructional Tour 3D[™] (VISIT 3D[™]), and related trainers. Maintain middleware/programming interfaces, software development guidelines, and digital content libraries. Deliver classroom and laboratory equipment to Fleet training centers. Act as lead systems integrator for future application development by third parties.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
SBSA	5 Year Ordering Period	Released	June 20
Competitive			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON	TRACT/ORIGINAL M (IF RECOMPETE)
Name: Mr. Paul Honold	\$99M		
Organization: PDS&U		Pro-Active	
Phone: 407-380-4160			
Email: paul.honold@navy.mil			



Multi-award IDIQ to provide computer models, applications, and other digital content for Multipurpose Reconfigurable Training System 3D[®] (MRTS 3D[®]), Virtual Interactive Shipboard Instructional Tour 3D[™] (VISIT 3D[™]), and related trainers using Government provided software development kits. Work with the ACTS IDIQ lead systems integrator for computer model and application development and testing.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
MAC	5 Year Ordering Period	1st Qtr FY21	1st Qtr FY22
Competitive		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Mr. Paul Honold	\$200M		M (IF RECOMPETE)
Organization: PDS&U		N/A	
Phone: 407-380-4160		1.0/7.	
Email: paul.honold@navy.mil			



Provide Contractor Maintenance Services (CMS) (FY21 through FY26) for NAWCTSD fielded trainers at the following Submarine Learning Center (SLC) Fleet Training Sites: Naval Submarine School, Groton, CT, (inclusive of Portsmouth, NH); Submarine Learning Facility (SLF), Norfolk, VA; Naval Submarine Training Center Pacific, Pearl Harbor, HI, (inclusive of Ford Island); Submarine Learning Center Detachment, San Diego, CA, (inclusive of North Island); Trident Training Facility (TTF) Bangor, WA, (inclusive of Bremerton); TTF Kings Bay, GA.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
 FTSS IV competitive CPFF 	• 5 years	1st Qtr FY21	3rd Qtr FY21
POINT OF CONTACT Name: Mr. Paul Honold Organization: PDS&U Phone: 407-380-4160 Email: paul.honold@navy.mil	FUNDING \$5.5M Base year	CURRENT CONTR DEVELOPER/OEM • Incumbent - Fidelit Corp	





Aida Matta

Director, International Training Products





New Zealand P-8A Training Systems

Description/Summary of Program Requirements

The Royal New Zealand Air Force (RNZAF) is purchasing the following Aircrew and Maintenance Training Systems as part of their Total Package Approach in support of the P-8 Aircraft procurement.

One (1) Operational Flight Trainer, one (1) Weapons Tactics Trainer, three (3) Electronic Classrooms, two (2) Debrief Stations, one (1) Virtual Maintenance Trainer, one (1) Training System Support Center (TSSC), one (1) Maintenance Support Cabinet (MSC).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Sole Source	5 years	Released	4 th Qtr FY20
			\land
		RFP Release	Contract Award
	FUNDING		ITRACT/ORIGINAL
Name: Aida Matta	TBD	Boeing	
Organization: PDI		Doonig	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Republic of Korea P-8A Training Systems

Description/Summary of Program Requirements

The Republic of Korea Navy (ROKN) is purchasing the following Aircrew and Maintenance Training Systems as part of their Total Package Approach in support of the P-8 Aircraft procurement.

One (1) Operational Flight Trainer, one (1) Weapons Tactics Trainer, five (5) Electronic Classrooms, two (2) Scenario Generation Stations (SGS), one (1) Virtual Maintenance Trainer, one (1) Training System Support Center (TSSC), and one (1) Maintenance Support Cabinet (MSC).

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Sole Source	5 years	Released	4 th Qtr FY20
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL
Name: Aida Matta	TBD	Boeing	
Organization: PDI			
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



P-8A Training Systems – Future International Partners

Description/Summary of Program Requirements

The Royal Saudi Naval Force (RSNF) is interested in the acquisition of Aircrew and Maintenance Training Systems to support the potential purchase of the P-8 Platform. Training Systems may include Operational Flight Trainer, Weapons Tactics Trainers, Training System Support Center (TSSC), Electronic Classrooms, Virtual Maintenance Trainers, and various other maintenance training devices.

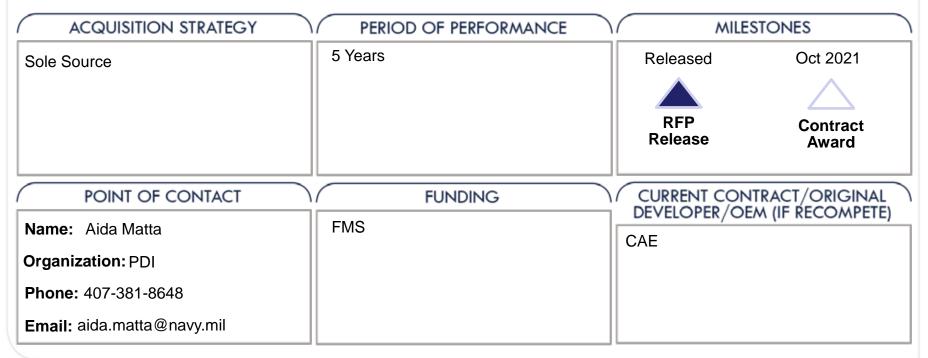
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	5 years	TBD	TBD
			\wedge
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Aida Matta	TBD	Boeing	
Organization: PDI		Dooling	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



MH-60R RAN Operator and Maintenance Concurrency

Description/Summary of Program Requirements

Simulator updates to operator and maintenance training devices (OFT, WTT, CMT, AMT/WLT), to maintain hardware/software concurrency (system configuration updates to include NGTS/CASE-FI), as well as, incorporation of aircraft Engineering Changes Orders and deficiency corrections.





MH-60R DALO Operator Trainer Concurrency

Description/Summary of Program Requirements

Simulator updates to operator training device (MOFT), to include ASW capability, maintain hardware/software concurrency, and incorporation of aircraft Engineering Changes Orders and deficiency corrections.

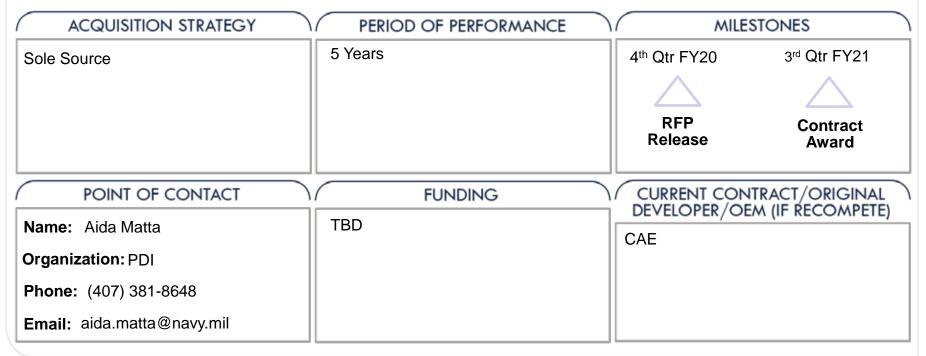
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	18-22 Months	Nov 2020	Jun 2021
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	TBD	CAE	M (IF RECOMPETE)
Organization: PDI		CAE	
Phone: (407) 381-8648			
Email: aida.matta@navy.mil			



MH-60R DALO Operator Trainer Follow-on COMS

Description/Summary of Program Requirements

Continue Contractor Operator and Maintenance of the Simulator tor operator training device (MOFT).





The Indian Navy is interested in the acquisition of Aircrew and Maintenance Training Systems to support the potential purchase of the MH-60R Platform. Training Systems may include a Tactical Operational Flight Trainer (TOFT) and Avionics Maintenance Weapons Load Trainer (AMWLT), and various other training devices.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
TBD	5 years	TBD	TBD
			\wedge
		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Aida Matta	TBD	Sikorsky	
Organization: PDI		Sikulsky	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Upgrade FA-18C Aircrew Weapons Tactics and Situational Awareness Trainer (WTSAT), Deployable Tactics Trainer (DTT), and Debrief Mission Operation Center (DBMOC) capabilities to address the changes in the SCS 27C(F) build 3.3.1 to 3.5.2. In addition it will address the risk associated with using WINS 7 by upgrading to WINS 10, improve the JTAC functionality, address outstanding DRs and enhance the HLA environment.

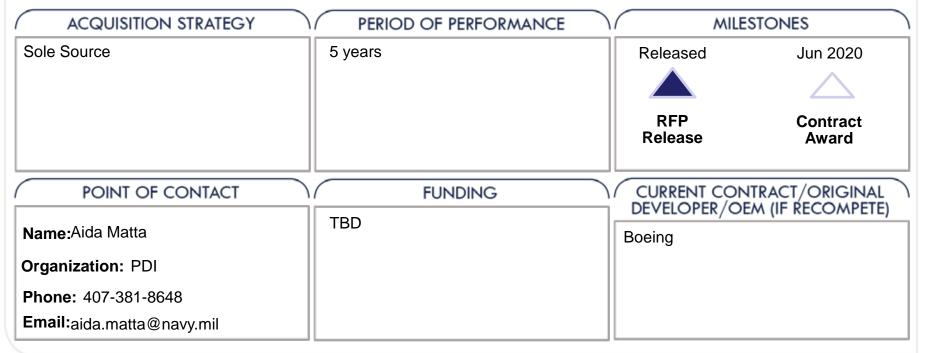
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole Source	18 months	Jun 2020	Jan 2021
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)	
Name: Aida Matta	FMS	Boeing	
Organization: PDI			
Phone: 407-381-8648			
Email:aida.matta@navy.mil			



Kuwait F/A-18E/F Training Systems

Description/Summary of Program Requirements

The Kuwait Air Force (KAF) is in the process of procuring FA-18E/F Super Hornet Training and Training Systems in a Block III configuration. This procurement includes Aircrew Training, Aircrew Computer Based Training (CBT), Tactical Operational Flight Trainers (TOFTs) and Low Cost Trainers (LCT's)



Australia F/A-18-F/EA-18G Maintenance Training/Trainer System

Description/Summary of Program Requirements

The Royal Australian Air Force (RAAF) is in the process of upgrading their existing FA-18F/EA-18G Australia Training Systems. Affected systems include Maintenance Trainers Integrated Visual Maintenance Environment Trainer (IVEMT) and Maintenance Courseware to H14A SCS sole source contract Boeing.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES	
Sole source	20 Months	Released	1 st Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	\$14.5M	Boeing	
Organization: PDI			
Phone: 407-381-8648			
Email:aida.matta@navy.mil			



Australia F/A-18-F/EA-18G Aircrew Training System

Description/Summary of Program Requirements

The Royal Australian Air Force (RAAF) is in the process of upgrading their existing FA-18F/EA-18G Australia Training Systems. Affected systems include Aircrew Trainers Tactical Operational Flight Trainer (TOFT), System Configuration Sets (SCS) H16A software/hardware upgrade from the IDIQ Contract.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES		
Delivery Order IDIQ Sole source	24 Months	3 rd Qtr FY20	2nd Qtr FY21	
			\square	
		RFP Release	Contract Award	
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL	
Name: Aida Matta	\$16.1 M	Boeing		
Organization: PDI				
Phone: 407-381-8648				
Email:aida.matta@navy.mil				



Australia F/A-18-F/EA-18G Aircrew Training System

Description/Summary of Program Requirements

The Royal Australian Air Force (RAAF) is in the process of upgrading their existing FA-18F/EA-18G Australia Training Systems. Affected systems include Aircrew Trainers Tactical Operational Flight Trainer (TOFT), hardware upgrade IG's/hardware obsolescence for all four TOFTs. Standalone Contract L3Harris.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
Sole source	18 Months	Released	2 nd Qtr FY21
			\bigtriangleup
		RFP Release	Contract Award
	FUNDING	CURRENT CON DEVELOPER/OE	TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	\$4.1M	L3Harris	
Organization: PDI			
Phone: 407-381-8648			
Email:aida.matta@navy.mil			



Bahrain AH-1Z Flight Training Device

Description/Summary of Program Requirements

Provide one (1) Flight Training Device to be delivered in country for initial and follow-on training.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
This effort is no longer being procured by NAWCTSD Contracting Agency, contracting agency is at Pax River.	2 years	Released	4 th Qtr FY20
Sole Source		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL
Name: Aida Matta	TBD	Bell	m (IF RECOMPETE)
Organization: PDI		20	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Bahrain AH-1Z International Pilot and Maintenance Training

Description/Summary of Program Requirements

Contractor-provided Pilot and Maintenance training in support of AH-1Z. Estimating 10 Pilots and 30 – 40 Maintenance Personnel. Training will be conducted in Bahrain.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
This effort is no longer being procured by NAWCTSD Contracting Agency, contracting agency is at Pax River.	2-3 year	3 rd Qtr FY20	3 rd Qtr FY21
Sole Source		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	TBD		M (IF RECOMPETE)
Organization: PDI			
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Description/Summary of Program Requirements

Provide one (1) Flight Training Device to be delivered in country for initial and follow-on training.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	STONES
This effort is no longer being procured by NAWCTSD Contracting Agency, contracting agency is at Pax River.	2 years	3 rd Qtr FY20	1 st Qtr FY21
Sole Source		RFP Release	Contract Award
	FUNDING	CURRENT CON	TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	TBD	Bell	M (IF RECOMPETE)
Organization: PDI			
Phone: 407-381-8648			
Email: aida.matta@navy.mil			

Czech Republic AH-1Z/AH-1Y International Pilot and Maintenance Training

Description/Summary of Program Requirements

Contractor provided Pilot and Maintenance training in support of AH-1Z. Number of students TBD. Training will be conducted in Czech Republic.

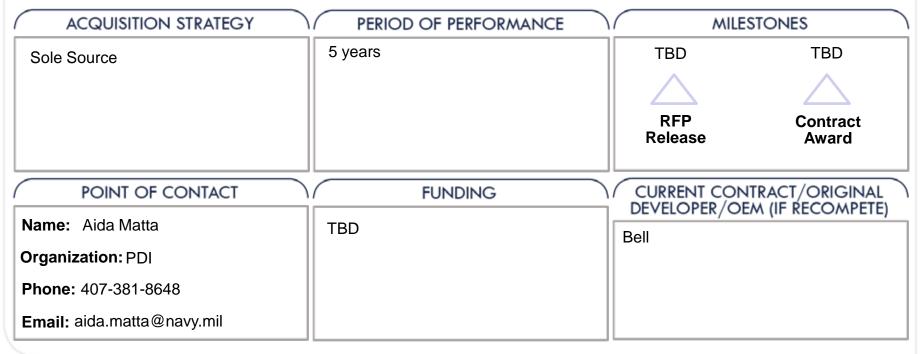
ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILES	TONES
This effort is no longer being procured by NAWCTSD Contracting Agency, contracting agency is at Pax River.	2-3 year	TBD	TBD
Sole source		RFP Release	Contract Award
	FUNDING		RACT/ORIGINAL
Name: Aida Matta	TBD	Bell	w (IF RECOMPETE)
Organization: PDI		2011	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



AH-1Z Training Systems – Future International Partners

Description/Summary of Program Requirements

The Nigerian Air Force is interested in the acquisition of Aircrew and Maintenance Training Systems to support the potential purchase of the AH-1Z Platform. Training Systems may include a Flight Training Device (FTD), Computer Based Training, and various other training devices.



Japanese Ground Self Defense Force (JGSDF) MV-22 Training System

Description/Summary of Program Requirements

Procurement of a Block C Half Wing Part Task Maintenance Trainer (HWPTT). This includes spares for the HWPTT and Containerized Flight Training Device.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
Sole Source	36 Months	Released	4 th Qtr FY20
Contract Vehicle - BOA			\bigtriangleup
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING	CURRENT CON	TRACT/ORIGINAL
Name: Aida Matta	\$18M	Bell / Boeing	
Organization: PDI			
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Saudi Arabia Multi-Mission Surface Combat (MMSC) Bridge Part Task Trainer System & Egyptian Navy COVE & FMB Training Systems

Description/Summary of Program Requirements

This is a procurement action combining Navigation Training system requirements for Kingdom of Saudi Arabia RSNF and Egyptian Navy. The three distinct training systems are;

Bridge Part Task Trainer – RSNF – modeled after LCS 1 and modified to MMSC ship's drawings and navigational equipment.

Class "A" Bridge Simulator – Full Mission Bridge (FMB)

Class "B" Bridge Simulator – Conning Officer Virtual Environment (COVE)

and, Spare Parts, Unclassified Publications, and associated support.

VSHIP software is common to all three training systems.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
TSC IV (SBA) Firm-Fixed Price (FFP) Delivery Order under TSC IV IDIQ MAC	3 years	Jun 2020	Oct 2020
Base Award for one FMB, one COVE and one BPTT		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	FMS Case Funded SR-P-SBV		
Organization: PDI		BPTT* (CSRA a	ind Xebec)
Phone: 407-381-8648		*OEM for LCS [Domestic
Email: aida.matta@navy.mil			



Saudi Arabia Multi-Mission Surface Combat (MMSC) Training System – Virtual Ship Training System (VSTS)

Description/Summary of Program Requirements

Royal Saudi Arabia Naval Forces (RSNF) Multi-Mission Surface Combatant is a variant of the US Littoral Combat Ship (LCS). Procurement of LCS type training systems to support RSNF Train to Qualify/Train to Certify requirements.

Requirements for this effort include the Virtual Ship Training System (VSTS), and the Virtual Reality Lab Hardware along with the classroom support equipment including desk & chairs.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
GSA purchase	2 years	Sept 2020	Nov 2020
			\wedge
		RFP Release	Contract Award
	FUNDING		TRACT/ORIGINAL M (IF RECOMPETE)
Name: Aida Matta	FMS Case Funded SR-P-SBV		
Organization: PDI		VSTS* (Triton J *OEM for LCS [,
Phone: 407-381-8648			
Email: aida.matta@navy.mil			



Saudi Arabia Multi-Mission Surface Combat (MMSC) specific Immersive Virtual Ship Environment (IVSE) Training System

Description/Summary of Program Requirements

Royal Saudi Arabia Naval Forces (RSNF) Multi-Mission Surface Combatant is a variant of the US Littoral Combat Ship. Procurement of MMSC specific Train to Qualify / Train to Certify Training Systems requirements.

This effort is for the MMSC specific Immersive Virtual Ship Environment (IVSE) and is tied to availability of MMSC Hull #1 for possible digital scanning and courseware development requirements.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MIL	ESTONES
STIGS IV	3 years	4 th Qtr FY21	4 th Qtr FY22
			\bigtriangleup
		RFP Release	Contract Award
POINT OF CONTACT	FUNDING	CURRENT CO	NTRACT/ORIGINAL
Name: Aida Matta	FMS Case SR-P-SBV	Original Develop	
Organization: PDI		Original Develo	
Phone: 407-381-8648			
Email: aida.matta@navy.mil			











Bob Seltzer

Director, Research and Technology Programs

https://www.navair.navy.mil/nawctsd/TSIS



Research & Technology Program Directorate

MISSION

Plan & Perform a Full Range of Directed Research and Development in Support of Naval and Other DOD Training Systems for All Warfare Areas and Platforms, to Maintain a <u>Naval Critical Technology Base</u> and <u>Transition Technology Results</u> to the <u>Fleet and Other Customers</u>



NAWCTSD Research Portfolio

- NAWCAD/Office of Naval Research Science & Technology (*BA1-3)
 - Basic Research
 - Applied Research
 - Advanced Development
- DoD Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program
- Navy Demonstrations and Validation Research (BA4-7)
- DoD Research
 - Joint/OSD/DARPA
 - Army/USAF/USMC Research
- Technology Transfer (Gov/Non-DoD Research)

NAWCTSD is a R&D Performer and Partners with Industry and Academia on Proposals and Subsequent Research Efforts

*BA = Budget Activity



Small Business Innovation Research (SBIR) Opportunities

Description/Summary of Program Requirements

- Process (2-3 SBIR solicitations per year)
- Phase I (1st yr): Scope problem & detail innovative solution (\$140K/\$100K option)
- Phase II (2nd-3rd yrs): Develop prototype, test & evaluate (up to \$1.5M)
- Phase III (thereafter): Further R&D development / acquisition transition (Government sole source)

Next Broad Agency Announcement (navysbir.com):

è (20.2) <u>Pre-release</u>: 6 May 2020 <u>Opens</u>: 3 Jun 2020 <u>Closes</u>: 2 Jul 2020

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
SBIR Phase I Competitive	 Phase I: 6 Month w/6 month Option Phase II: Up to 24 Months Phase III: Open 	6 May 2020	2 Jul 2020
SBSA All Contracts Processed at NAWCAD, Lakehurst		RFP Released	Contract Award
	FUNDING		NTRACT/ORIGINAL
Name:Mr. Robert Seltzer	 Year 1 RDT&E \$140K/\$100K Year 2-3 RDT&E \$1.5M 	• TBD-Up to 3 aw	
Organization: R&T Program Office	Year 4+ Non-SBIR \$s; No Limit/ No Competition Required	topic	
Phone: 407-380-4115			
Email: Robert.seltzer@navy.mil			



Small Business Technology Transfer (STTR) Opportunities

Description/Summary of Program Requirements

- Small business required to team with research or academic institution (non-Government)
- Phase 1(1st yr): Scope problem & detail innovative solution (\$140K/\$100K option)
- Phase II (2nd-3rd yrs): Develop prototype, test & evaluate (\$1.5M)
- Phase III (thereafter): Further R&D development/acquisition transition (Government sole source)
- Large businesses can partner with small businesses (for Phase III)

Next Broad Agency Announcement (navysbir.com):

è (20.B) <u>Pre-release</u>: 6 May 2020 <u>Opens</u>: 3 Jun 2020 <u>Closes</u>: 2 Jul 2020

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILE	STONES
STTR Phase I	Phase I: 6 Month w/6 month Option Phase II: up to 24 Months	6 May 20	2 Jul 20
Competitive	 Phase II: up to 24 Months Phase III: Open 		
SBSA		RFP	Contract
All Contracts Processed at NAWCAD, Lakehurst		Released	Award
POINT OF CONTACT	FUNDING	CURRENT CON	TRACT/ORIGINAL
Name:Mr. Robert Seltzer	 Year 1 R&D \$140K/\$100K Option Year 2-3 R&D \$1.5M (Total) 	• TBD-Up to 3 aw	
Organization: R&T Program Office	Year 4+ Non-SBIR/STTR \$s; No Limit No Competition	topic	
Phone: 407-380-4115	Required		
Email: Robert.Seltzer@navy.mil			



• N202-091: AI for Anti-Submarine Warfare (ASW) Training

PHASE I: Design, develop, and demonstrate feasibility of AI techniques, methods, and models, to augment the Navy ASW capability via the addition of an artificial intelligence (AI) training aid that can also assist as an operational decision-support tool. Demonstrate the feasibility of the proposed training capability within an undersea (or relevant) domain with publicly available training data. The early system should demonstrate a form of explainability and confidence values in outputs provided. Outline future concepts for the inclusion of self-tuning algorithm parameters.

• N202-098: Voice Recognition to Support Assessment of Cross Platform Situational Awareness and Decision Making

PHASE I: Develop a concept for standalone, voice assessment capability for a single Air Defense platform. Demonstrate feasibility of application into the larger, integrated training system. The concept should include a plan for integration into the NGTS ART to allow voice feedback/assessment to be aligned with unclassified performance data from NGTS and include assessment visualizations to support diagnosis and feedback. The Phase I effort will include prototype plans to be developed under Phase II.

DoD 20.2(SBIR) / B (STTR) Solicitation Opens: <u>6 May 20</u> Closes: <u>2 Jul 20</u> (<u>www.navysbir.com</u>)



NAVAIR SBIR/STTR Proposal Solicitation Topics

•N202-111: Desktop Tactics Trainer for Maritime Patrol Aircraft

PHASE I: Develop an innovative approach for a computer-based tactical trainer in the maritime patrol domain, or a similar domain for feasibility demonstration. This topic seeks to fill the gap between learning tactics from a book, and utilizing those tactics in a simulator event by providing a low-cost, computer based, simulated environment where students can try out what they learned and practice tactics in advance of discussions, as well as simulator and flight events. Low cost should be considered as a solution that is capable of running on a typical mid-range Windows computer.

•N202-112: Multi-Domain Data Fusion Instructional Strategies Methods

PHASE I: Research and develop training objectives for the multi-domain environment and instructional strategies for manned-unmanned data fusion tactical decision making. Identify training technology to assist instructors with training and/or technologies to support instructorless training (e.g., scaffolding) that might provide beneficial uses in operational contexts for operator job aids when leveraging manned-unmanned data fusion for tactical decision making. Research and develop recommendations for automation transparency to support operator tactical decision making when leveraging manned-unmanned data fusion technology in multi-domain environments.

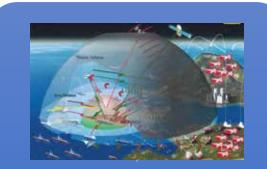
DoD 20.2(SBIR) / B (STTR) Solicitation Opens: <u>6 May 20</u> Closes: <u>2 Jul 20</u> (<u>www.navysbir.com</u>)

Continuing Areas of Research



Emerging Instructional Methods

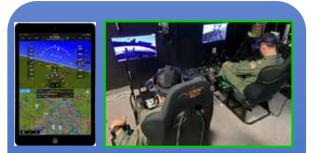
- s Adaptive Training Techniques
- **s** Scenario Based Trg Methods
- s Multi-level Performance Measurement & Assessment
- **s** Human Performance Measurement Approaches



Challenge Areas Supported

- s Denied & Degraded Environments
- s Electronic Maneuver Warfare
- s Integrated Warfighting Capability
- s Cyber Warfare
- s Manned-Unmanned Teaming

Instructional Strategy



Training Technology & Environments

- S Data Science (AI/ML)
- **s** eXtended Reality Visual & Haptics Enhancements
- s Live, Virtual, Constructive
- s Effects Modeling
- s Mobile Learning/Deployable
- s Cybersecurity & Cloud-based



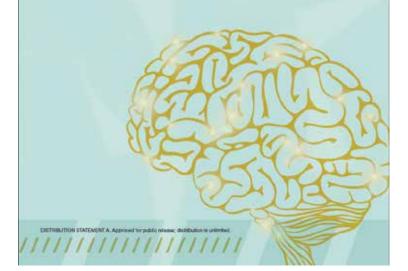
NAWCTSD Research Compendium

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION





Training • Human Performance • Modeling & Simulation



EXAMINING THE EFFECTS OF GAME FEATURES ON LEARNING IN SCENARIO-BASED TRAINING

OBJECTIVE The objective of this research is to systematically test the impact of two game features on performance and motivation



PROJECT DURATION OCT 2015- SEP 2018

FUNDING SPONSOR Neval Air Systems Command (NAVAR-Section 219

POINTS OF CONTACT Cheryl Johnson, Ph.D. (Pf. chend... Johnson@havv.mi

> CDR WR Wells (PN) withed webs@new mi

File Revisione Operative Adouttive Trainer JRDATI user interfore with prime paujer included Dottom left

DESCRIPTION

Previous research has shown moved results on the efficancy of Game-based training may be well-suited to meet the Narry's

NEED

In light of budget declines, there has been a strong push across STATUS features that lead to better learning and performance outcomes.

receives resource to shown model model and retriention of our entropy of controlated terminal part for well-shown of memory of memory of these shown in the properties given the control of these shown of systematically investigated taday's young adults. This research each is a shown on systematically investigated taday's young adults. This research each is a shown on the shown of competition and game features would increase motivation and literature. Previous studies have assessed the value of game enhance performance in a simulation-based having task. In a set, based training over traditional methods of instruction, but few have of experiments, we explored whether the presence of game investigated individual game fleatures and their implict on features performance gauges and score) and competition features performance and motivation. The lindings of these experiments (a leade-board: effected motivation and learning outcomes within may have a broad impact on future training systems by offering the Periacope Operator Adoptive Trainer (POAT). empiricelly-based guidence for designing game feetures to enhance effectiveness

BENEFITS

the DXC for low-cells training sectingues that are engaging, in FYTE, the research learn conducted two experiments, realistic, and can be delivered asystme, anywhere Game-based Experiment 1 was conducted with accessmately 120 college training techniques hold promite to meet this demond as they are intudents, and the results showed that incorporating game features purported to enhance player motivation. However, existing into saming dd not improve trainee performance on the task or restarch on the effectiveness of game-based training a mored and their monvation to play the game. Experiment 2 was conducted often consystematic, resulting in a failure to identify specific game, with approximately 20 submarine officer students at NAVSUBASE New London, utilizing a simpler experimental design. Experiment 2 replicated the esuits of Experiment 1.

MILESTONES

- Completed dats collections for Experiment 1 with a college student population and Experiment 2 with Submarine Officer Easis Course (SCEC) Buteros
- Developed experimental reathed for systemationly evoluting genre leasance, such as scores, teach barros, and porfer gauges in the Persicope Operator Adaptive Trainer (POAT).
- Presentation: Mercado, A. D., Johnson, C. L. Landsberg, C. R., & Balley, S. K. T. (2018, August): A systematic evaluation of game features in simulation-based training. Poster presented at the International Ergonomic Association conference.
 - Analyzed data and wrote report of results from SOBC experiment, concluding that game features do not increase motivation nor improve the accuracy of perscope calls. Adaptive training increased call accuracy regardless of inclusion of perno lesturos

BASIC AND APPLIED RESEARCH . CORE CAPABILITY 2

Research Compendium can be found at the bottom of the NAWCTSD Web site Home page: https://www.navair.navy.mil/nawctsd/node/536



Hard Problem Solution Space

Fleet Training Req't (Aviation/Surface/Undersea & Ready Relevant Learning)				
S	Supporting Fleet Training Need			
Current Flo	et Training Deficiency/Gap D	Description		
	Related Research			
Government Labs	Industry	Academia		
Navy	IRAD	FFRDCs & UARCs		
Air Force Army	SBIRs STTRs			
FFRDCs DHS	S&T	Grant Research		
NASA				

KEY: DHS – Defense Homeland Security

FFRDC – Federally Funded R&D Centers (Navy - Center for Naval Analyses)

IRAD – Independent Research & Development

UARC – University Affiliated Research Ctr (Navy – John Hopkins, Penn State, U. of TX, Washington, & Hawaii)



Example: Hard Problem Solution Space

Fleet Training Req't: Maintenance Training (*TS ENARG #8)			
Dev. & Integrate a low-cost haptic glove for AR/VR maintenance trg applications			
<u>Gap Description</u> : Having the ability to integrate a functional haptic glove brings an added dimension of fidelity realism to certain maintenance tasks that is believed will increase the overall training effectiveness.			
Related Research			
Government Labs	Industry	Academia	
Navy	IRAD	FFRDCs & UARCs	
Air Force Army	SBIRs	STTRs	
FFRDCs	S&T	Grant Research	
DHS			
NASA			

*TS ENARG – Training Systems Enabler Navy Aviation Requirements Group

Technology Transfer:

Partnering with Industry, Academia, State/Local

Collaborative Research and Development Agreement (CRADA)

- Allows R&D collaboration between NAWCTSD and nonfederal partners.
- Provides the means to offer intellectual property (IP) rights to a non-federal partner.
- NAWCTSD can provide:
 - Personnel
 - Facilities/Equipment
 - Intellectual Property (IP)
 - <u>NO</u> funds
- Non-federal party can provide:
 - Personnel
 - Facilities/Equipment
 - Intellectual Property (IP)
 - Funds

Commercial Service Agreements (CSA)

- Allows the sell of defense articles and/or services that are not available from any United States commercial source.
- Makes services of any government laboratory, center, range or other testing facility available for testing purposes on a reimbursable basis.
- Relies on existing capabilities and expertise
- Requires full reimbursement of Government costs
- Cannot compete with United
 States private industry

Technology Transfer: Partnering with Industry, Academia, State/Local

Software License Agreement (SLA)

- Agreement between NAWCTSD and an Industry partner which allows them to make, use and sell federally developed software with the assurance that we will not sue for infringement.
- NAWCTSD retains rights to use the software for government purposes.
- Industry partner pays royalties to NAWCTSD.

Patent License Agreement (PLA)

- Agreement between NAWCTSD and an Industry partner which allows them to make, use and sell federally owned inventions with the assurance that we will not sue for infringement.
- NAWCTSD retains rights to use the technology for government purposes.
- Industry partner pays royalties to NAWCTSD.

Search for us on <u>https://www.federallabs.org/flcbusiness</u> for more information on available technologies.

New in 2020

Partnership Intermiterat Agreement (PIA)

Diana: Do we need to share anything else to foot stump what the CO opens with on this subject

- Tech Grove is a platform forged through a partnership between NAWCTSD and the University of Central Florida Research Foundation to solve challenging Warfighter problems.
- The Tech Grove is the public facing entity that will facilitate collaboration, innovation and exploration between, Small Businesses, Entrepreneurs, Labs, Academia Team Orlando and Government Stakeholders.

How to Participate in NAWCTSD Research?

- Tell us about your Independent Research and Development (IRAD) efforts
 CO/ED/Diana/Wil/Lisa -
- Respond to SBIR/STTR S Assume CO/ED be speaking to the PIA/Tech GroveYes?
 - Small Business Large | Or do I ADD Bullet about PIA? Or Separate Slide about PIA before this slide?
- Pursue Cooperative Research and Development Agreements (CRADAS) with NAWCTSD when we find an area of common interest
- Partner on Joint Proposals (Scientist to Scientist/Engineer to Engineer)
 - If successful w/joint proposals several contract vehicle options available:
 - SBIR Phase III
 - NAWCTSD R&D Broad Agency Announcement (S&T projects only)
 - ONR/DoD/funding agency contracting

https://www.onr.navy.mil/en/work-with-us/funding-opportunities

Research & Technology Program Office POC

Director, Bob Seltzer

407-380-4115

Robert.Seltzer@navy.mil







Alignment to Navy S&T Priorities

Prioritized *TS ENARG list

- 1. Distributed Mission Training
- 2. SAP all the Time
- 3. LVC for training
- 4. Safety-aircrewman and LSO
- 5. Adversary Recapitalization
- 6. Full Spectrum EW
- 7. SIM/AC concurrence
- 8. Maintenance training
- 9. Post mission assessment
- 10. Training Asset Shortfall

FY21 NAVSEA Warfare Ctr Investment Guidance

- AI/ML
- Autonomy/Unmanned Systems
- Cybersecurity
- Digital Science
- Directed Energy
- Electromagnetic Spectrum Operations
- Hypersonics
- Integrated Power & Energy
- Lethality: Mission Effectiveness
- Lethality: Ordinance Systems
- LVC
- MBSE
- Ocean Sciences & Sensing
- Platform Design Science
- Quantum Sciences
- Sustainment & Repair
- Trusted Electronics
- Cycle of Assessment
- Advanced Naval Technology Exercises (ANTX)

2018 Undersea Warfare STOs (#8) Warfighter Supremacy

- Develop unmanned systems battlespace management capability that collects relevant sensor data in real time, federates platform sensors, detects threats, and alerts operators to conflicting mission tasking and waterspace employment
- Develop human-centered analytic techniques that allow submarine commanders to rapidly and confidently make data informed decisions
- Develop on-board adaptive training tools to support both individual operator instruction and integrated team training that both increases operator retention and improves individual and team proficiency
- Develop distributed schoolhouse capabilities that operate within a common virtual environment to allow access and manipulation by geographically distributed students (individually or collaboratively in teams) and instructors
- Develop a long dwell submarine training target for both tactical development and operational integrated Fleet training to minimize SSN target services. Technologies should strive to minimize the logistics footprint, while retaining flexibility in acoustic and operational capabilities
- Optimize operator integration with unmanned underwater systems to achieve greater mission effectiveness



Continuing Areas of Research

FROM 2019 TSIS - Delete

- Enterprise Data Analytics
 - Aviation physiological episode causal analyses
 - Enterprise-level insight with unstructured datasets
- Instructional Techniques & Strategies
 - Adaptive Techniques Based upon Knowledge and Skill Decay
- Virtual Reality & Augmented Reality Training Technologies
 - Instructional Strategies
 - Visual & Haptic Enhancements
- Live, Virtual & Constructive (LVC) Training
 - Multi-level Performance Measurement and Assessment / Human Perf. Modeling
 - Denied & Degraded Environments (D2E)
 - Electronic Maneuver Warfare Training Strategies and Technologies
- Cyber Warfare
 - Human Performance & Training
 - Modeling Effects

Human Systems Technology Roadmap

- Current and planned projects aligned with NAWCTSD's Core Capabilities and Future Directions Document
- Inputs from:

Delete - From 2019 TSIS - net using this Roadmap

- NAVAIR R&D Portfolio
- Cross SYSCOM working groups (i.e. NAVAIP, NAVSEA, SPAWAR, etc.)
- Cross Services working groups

Five Enabling Capabilities

- 1. Human Sys. Engineering, Integration and Acquisition
- 2. Optimized Human Performance& Decision Support
- 3. Adv. Training System Technology
- 4. Human System Design, Analysis and Evaluation
- 5. Warfighter Protection, Performance & Survivability

Current version of the NAWCTSD Technology Roadmap can be found at: https://www.navair.navy.mil/nawctsd/EngineeringTechnology



Example: Hard Problem Solution Space (2/2)

Fleet Training Req't: Maintenance Training (ENARG #8)			
Develop a means to employ wireless AR/VR capability in classified labs			
<u>Gap Description</u> : Currently AR/VR based training can not be deployed/used in secure spaces where it is needed. A solution is needed to be able to modify AR/VR commercial hardware to be cyber compliant (e.g., the mouse clicker problem)			
Related Research			
Government Labs	Industry	Academia	
Navy	IRAD	FFRDCs & UARCs	
Air Force Army	SBIRs	STTRs	
FFRDCs	S&T	Grant Research	
DHS			
NASA			