



# 2020

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**Missile Defense Agency  
Office of Small Business Programs  
Virtual Conference**

# **Missile Defense Agency Test Resources Directorate Instrumentation Support Contract (DISC)**



**To: Small Business Conference**

**By: Mr. Kevin Williams  
Director, Test Resources  
Missile Defense Agency  
May 12-14, 2020**

Approved for Public Release  
20-MDA-10435 (27 Mar 20)



# DISC

- **The Test Resources Directorate (DTR) Instrumentation Support Contract (DISC) covers test support, operation and sustainment for specified test instrumentation owned by the Missile Defense Agency (MDA)**
- **DISC supports Research, Development, Test & Evaluation (RDT&E) of Missile Defense System flight tests, ground tests and other related Department of Defense (DoD) activities**
- **DISC covers support to maintain cybersecurity compliance of the described systems and capabilities**
- **The services required in each DISC area, as well as the required personnel skill mix, may vary mission-by-mission and year-by-year**



# DISC Request For Information (RFI)

- **RFI Released: February 10, 2020**
  - **Agency: MDA**
  - **Office: Directorate for Test (DT)**
  - **Location: MDA-CTT**
  - **NAICS: 541715**
  - **PSC: AC23**
  - **Solicitation Number: HQ0859-20-DSC-RFI**
  - **Notice Type: Sources Sought**
- **Purpose of RFI, help MDA make informed acquisition decisions to:**
  - **Assess the current marketplace and existing industry capabilities to satisfy the MDA requirements**
  - **Obtain recommendation from industry on the acquisition strategies and contractual approaches that are most appropriate to satisfy the MDA requirements**
  - **Identify and mitigate any potential barriers to competition**
  - **Determine industry data/information needs to support proposal preparations**
  - **Identify areas that could be set-aside for small business**



# DISC Purpose

- **DISC provides the MDA/DT with test support and operation and sustainment of MDA Test assets and capabilities**
  - **X-Band Transportable Radar (XTR)**
  - **Pacific Collector Range Safety System (PCRSS)**
  - **Mission Execution and Display Distribution System (MEDDS)**
    - **Video Displays**
    - **Mission Viewing**
  - **Test Communications Networks (TCN)**
  - **Test Resource Cyber Security**



# XTR Ship Based DISC Component

- **X-Band Transportable Radar (XTR)**
  - Hosted on the Pacific Tracker (PT)
  - Dual X/S-band instrumentation radar with an 11-meter dish antenna
  - Collects high-resolution, wideband metric and signature radar truth data in X-band and S-band
  - Data supports advanced discrimination algorithm development and intercept diagnostics including target scene characterization and interceptor dynamics



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# PCRSS Ship Based DISC Component

- **Pacific Collector Range Safety System (PCRSS)**
  - Hosted on the Pacific Collector (PC)
  - Certified, mobile, flight safety platform
  - Maintains positive control over flight termination system (FTS)
  - Processes S or L-and missile telemetry
  - Provides real-time Time Space Position Information, FTS health and status measurements to onboard Flight Safety personnel
  - Fully redundant system consisting of two major functional areas: a real-time flight safety data Processing and Display System (PDS) and a Command and Control System (CCS)
  - Government safety personnel operate system during tests



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# MEDDS DISC Component

- **Mission Execution and Display Distribution System (MEDDS) shall consolidate the TSS and MD3S systems**
  - Provides synchronized real time mission data, Situational Awareness (SA), and pre-mission test assurance products
  - Telemetry (TM) processing, data/displays, pointing data for sensors, mission visualizations, seeker video processing, and data interfaces to test ranges
  - Pre-mission telemetry playbacks, end to end TM systems verifications
  - Relays synchronized real time mission video and specialized data displays
  - Global IP-based digital data/display delivery system based on COTS products
  - One transmitter streams real time video/audio from source sites to multiple receivers/recorders at distributed locations
  - Recorders located at MDA store and manage content for later play back, analysis, and after action review
  - Will operate at over 55 locations



# Distributed DISC Component

- **Test Communications Networks (TCN)**
  - Provides fully redundant and diverse communication paths for Telemetry (TM) Data, Situational Awareness (SA) video, and voice/data communication between ranges, command and control centers, and mobile assets
  - Includes Voice intercom, Terrestrial & Satellite Communications (SATCOM) (C-Band) circuits and access, Internet, radio, telephone service, and transport of mission specific networks
- **Test Resource Cyber Security**
  - IAW DoD instructions 8500.01 and 8510.01
  - Conduct of Certification and Authorization (C&A) activities to obtain and maintain enclave Authorization to Operate (ATOs)
  - Provide Risk Management Framework (RMF) authorization packages for the PCRSS, XTR, MEDDS (TSS and MD3S), and TCN
  - Minimize and consolidate total number of authorization packages to the extent practical
  - Includes Information Systems Security Manager coordination and computer network defense reporting



# Draft SOW Summary of Requirements

DRAFT SOW	Task Description
3.2	Mission and Test Execution Requirements
3.3	Test Communications Networks (TCN) Mission and Test Execution
3.4	X-Band Transportable Radar (XTR) Mission and Test Execution
3.5	Pacific Collector Range Safety System (PCRSS) Mission and Test Execution
3.6	Mission Execution and Display Distribution System (MEDDS) Mission and Test Execution
3.7	Operations and Sustainment (O&S) Requirements
3.8	TCN O&S
3.9	XTR O&S
3.10	PCRSS O&S
3.11	MEDDS O&S
3.12	Cybersecurity
3.13	Contractor Management, Reporting, and General Performance Requirements
3.14	Security and Classified Data
3.15	Software
3.16	Quality Assurance
3.17	Environmental Safety and Health (ESH)
3.18	Small Business
3.19	Property Management

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# DTR Mission Overview



Kevin Williams  
Director

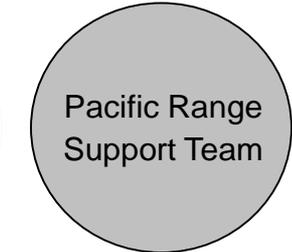
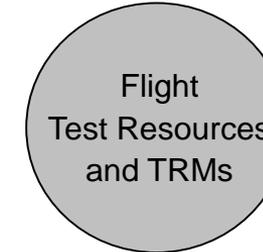
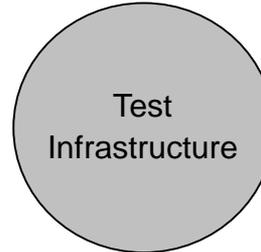
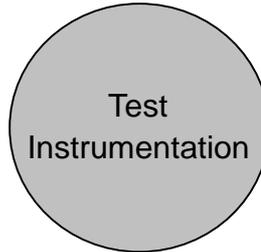


Michelle Nelson  
Deputy Director

- Procure, maintain, and manage test resource and test range infrastructure
- Provide trained Test Resource Managers (TRMs) for flight test events
- Integrate test resources into each test event
- Ensure cybersecurity is integral to each mission function

## DTR Facilitates:

- Test Resource Architectures for Integrated Master Test Plan (IMTP)
- Agency Interaction with Test Resources Management Center (TRMC)
- Test and Evaluation Board of Directors (T&E BoD)
- Range Commanders Council (RCC)
- Centralized Test Range Interface for Range Integration and Agency Test Scheduling
- Test Resource Integration and Support into DTF, DTG, and Elements
- Single, Centralized, Integrated View of Infrastructure
- Cybersecurity as an essential element of the DTR mission



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