

# Missile Defense Agency Small Business Programs Conference Sensors Directorate Overview



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# Sensors Directorate

## Mission, Contributions to The Ballistic Missile Defense System (BMDS)

### ◆ Mission: Develop, Test, Acquire, Deploy, and Sustain BMDS Sensors

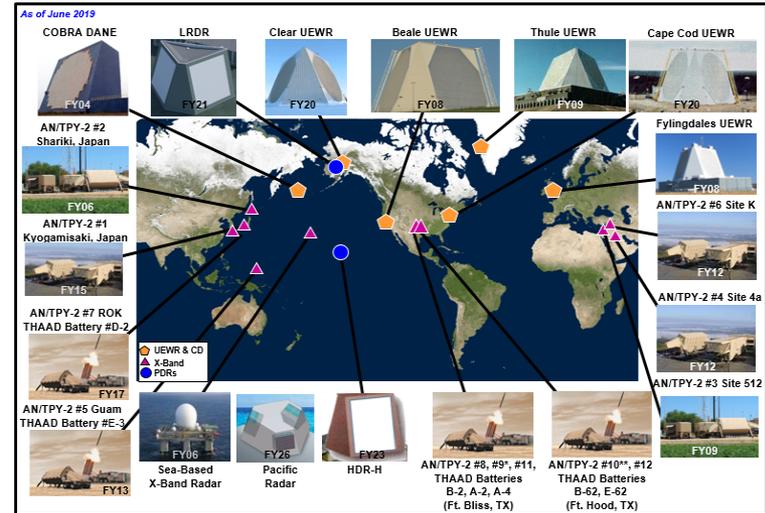
### ◆ Sensors Contribution to Operational BMDS

- Provide Track, Discrimination, and Intercept Assessment Data
- Global Sensor Coverage (16 time zones, 3 continents)
- Additional Sensors Planned
- Address Evolving Ballistic Missile Threats

### ◆ Sensors Contribution to BMDS Testing

- Integrated & Distributed Ground Tests
- Flight Tests (Aegis, Terminal High Altitude Area Defense (THAAD), mid-course defense)
- Operationally Representative Models & Simulations (M&S) Validation & Accreditation

### ◆ Supporting International Cooperation with THAAD Foreign Military Sales (FMS) Case



\* Radar #9 currently on Kodiak Island  
 \*\* Radar #10 currently deployed to EUCOM



# Sensors Top Management Focus Areas

- ◆ **Continue focus on increasing system reliability to build Warfighter confidence**
  - **Sustain Deployed AN/TPY-2 Radars, SBX, UEWRs, and COBRA DANE**
  - **Support Robust BMDs Flight and Ground Testing**
    - Complete FTG-11: Flight test with AN/TPY-2 radar at Wake Island and SBX in Broad Ocean Area
    - Complete Ground Test (GT)-19 Sprint and Distributed Ground Test evaluating both theater/regional and homeland defense capabilities
  - **Improve Sensor Reliability and Cybersecurity**
    - Add robustness to AN/TPY-2 and COBRA DANE radars: additional spares, hardware/software improvements, float components
    - Reliability improvements with SBX radar cooling system upgrades, and replacement of radar processors
- ◆ **Increase engagement capability and capacity**
  - **Address Sensor Coverage Gaps**
    - Deploy Long Range Discrimination Radar (LRDR) to Clear, Air Force Station, AK
    - Continue Homeland Defense Radar-Hawaii (HDR-H) and Pacific Radar acquisition (PAC Radar)
  - **Improve Sensor Discrimination, Electronic Protection, and Debris Mitigation**
    - AN/TPY-2 and SBX Software Upgrades to maintain and improve performance against an evolving threat
    - Complete SBX processor upgrades and deploy AN/TPY-2 radars x86 upgraded Processors
    - Improve COBRA DANE and UEWR Object Classification
  - **Continue Clear/Cape Cod Early Warning Radars Upgrade**
    - Complete Clear and Cape Cod Operational testing and Ops Acceptance by Air Force Space Command
    - Continue AF-funded Beale, Fylingdales, Thule processing equipment upgrades
- ◆ **Address the Advanced Threat**
  - **Hypersonic Threat Defense Development**



# Potential Sub-Contracting Opportunities

Contract	Description	Prime(s)	Current PoP End
<b>SBX Mission Integration</b>  	<ul style="list-style-type: none"> <li>◆ SBX vessel integration and coordination of services (tech, ops, supply, etc) through various sources</li> </ul>	Gryphon Technologies	June 2024
<b>Radar Development Contract (RDC)</b>  	<ul style="list-style-type: none"> <li>◆ Program Management</li> <li>◆ Hardware &amp; Software Development and Sustainment for AN/TPY-2 and SBX Radars</li> <li>◆ Engineering Services</li> </ul>	Raytheon Integrated Defense Systems (IDS)	October 2023
<b>Contractor Logistics Support (CLS)</b>  	<ul style="list-style-type: none"> <li>◆ Operations and Sustainment activities for all AN/TPY-2 radars and SBX</li> <li>◆ Deployment and Site Support</li> <li>◆ Depot transition support</li> </ul>	Raytheon Integrated Defense Systems (IDS)	October 2024
<b>Radar Test Contract (RTC)</b>    	<ul style="list-style-type: none"> <li>◆ Flight and ground test support to Upgraded Early Warning Radars (UEWRs) and COBRA DANE (CD) and X-Band Radars</li> <li>◆ Models and Simulations</li> </ul>	Raytheon Integrated Defense Systems (IDS)	January 2023
<b>AN/TPY-2 FMS – United Arab Emirates (UAE)</b> 	<ul style="list-style-type: none"> <li>◆ Operations and Sustainment of 2 AN/TPY-2 radars in-country</li> <li>◆ Spares, Sustainment, Maintenance, and Training</li> </ul>	Raytheon Integrated Defense Systems (IDS)	October 2020
<b>AN/TPY-2 FMS – Kingdom of Saudi Arabia (KSA)</b> 	<ul style="list-style-type: none"> <li>◆ Production and initial CLS of 7 AN/TPY-2 radars in-country</li> <li>◆ Spares, Sustainment, Maintenance, and Training</li> </ul>	Raytheon Integrated Defense Systems (IDS)	August 2027



# Potential Sub-Contracting Opportunities (cont.)

Contract	Description	Prime(s)	Current PoP End
Long Range Discrimination Radar (LRDR) 	<ul style="list-style-type: none"> <li>◆ Radar Development and Production</li> <li>◆ Site construction</li> <li>◆ Deploy</li> <li>◆ Sustainment</li> </ul>	Lockheed Martin	September 2023
Homeland Defense Radar (HDR) 	<ul style="list-style-type: none"> <li>◆ Multi-Award Indefinite Delivery / Indefinite Quantity (MAIDIQ)</li> <li>◆ Radar Development and Production</li> <li>◆ Site construction</li> <li>◆ Logistics</li> </ul>	Lockheed Martin, Northrop Grumman, Raytheon Integrated Defense Systems (IDS)	July 2025
Upgraded Early Warning Radar (UEWR) / Cobra Dane 	<ul style="list-style-type: none"> <li>◆ Upgrade of Early Warning Radars at Clear, Cape Cod, and Beale AFB, Thule AB, and RAF Fylingdales</li> </ul>	Raytheon Integrated Defense Systems (IDS)	December 2019



# How Can Small Businesses Help?

## ◆ Support Sensors Top Management Focus Areas

- Offer flexible technical expertise to support multiple Radars deployed worldwide
- Offer affordable acquisition and sustainment costs through open, non-proprietary, modular software architecture
- Leverage existing hardware/software reuse and economy of scale benefits

## ◆ Develop partnerships with Current Prime Contractors and other mission area partners

## ◆ Communicate with the Government

- Attend Industry Days when scheduled
- Provide Draft Request for Proposal feedback
- Monitor FedBizOpps ([www.FBO.gov](http://www.FBO.gov)) for subcontracting opportunities



**AN/TPY-2**



**SBX**



**UEWR**



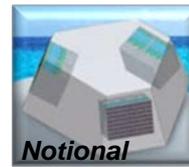
**COBRA DANE**



**LRDR**



**HDR**



**Pacific Radar**

