

## About Us

Mission Driven Research (MDR), headquartered in Huntsville, AL, was established in late 2012 supporting the Missile Defense Agency (MDA). MDR has grown to over 50 employees in Huntsville and Colorado Springs, CO providing technical and analytical support to the MDA, NASA, MSIC, the Army, and commercial customers.



## **Corporate Data**

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Go Grow Give



## Core Competencies:

Mission Driven Research (MDR) primarily provides technical, engineering, and programmatic support to multiple customers within the Defense and Space industries, with significant experience in the following areas:

#### **Modeling & Simulation**

MDR personnel are highly skilled in the development of all types of military weapon systems models, both offensive and defensive. MDR routinely develops foreign and domestic space launch, rocket, and missile models across a variety of disciplines (CAD, flight, signature) at a sufficient level of fidelity for the application. MDR is qualified to create sensor models (such as radar and infrared sensors), as well as communication, command, and control models and simulate their performance in a variety of environments.

#### **Engineering Design & Analysis**

Our employees are experienced in conducting engineering design and analysis at the component and system level. MDR effectively develops full-scale prototypes, such as small unmanned aerial vehicles. We also support the design and engineering of sub-systems within larger systems. At the system level, MDR routinely conducts engineering analysis to design and plan full-scale system-level flight test missions for the Missile Defense Agency.

#### Software Development & Cybersecurity

MDR provides a robust software development team which has developed products both internally and externally. Missile Tool Kit (MTK) is one such product that provides users the ability to **design and model the flight characteristics** of all types of missiles and rockets within Systems Tool Kit (STK), including orbital vehicles and ballistic, hypersonic, and cruise missiles. Additionally, MDR has an emerging cybersecurity capability that includes Penetration Testing, Vulnerability Analysis and Assessment, and Web/Software Hacking.

#### Systems Engineering & Program Office Support

MDR has a strong history of supporting systems engineering processes for our customers, spanning from the development, definition, and decomposition of system and component-level requirements through design, testing, and verification and validation. MDR assists our customers in oversight of phase reviews to confirm entry and exit criteria are fully achieved. We also support program and product offices with big picture challenges including both long-term strategic planning and routine support (e.g. independent review and analysis of contract deliverables).

# **Past Performance**

MDR employees have developed missile, sensor, and command, control, and communications models and simulations instrumental in the design, planning, execution, and post-mission analysis of successful tests for all MDA defense systems. In addition, we have performed independent validation and verification of models for the Missile and Space Intelligence Center (MSIC), ensuring the accuracy and reliability of critical simulations used in defense planning and operations. MDR also provides key senior leadership support for NASA (including Space Launch System (SLS) and Mars Ascent Vehicle (MAV)), Army, and MDA programs.





# CAPABILITY STATEMENT

Mission Driven Research, Inc





### Differentiators

MDR provides high-caliber, loyal employees that are motivated to exceed customer expectations in technical competence and high ethical standards. Our employees are unified by a common mission of serving their customers and the needs of the communities in which they operate, putting the needs of others higher than their own.

#### Awards

Best Places to Work • Gold 2023 & 2024 • Bronze 2022

• Contender 2017 - 2021 Inc 500, 2017

Inc 5000, 2017 - 2021, 2024



Robust Software Development

