



***MDA Advanced Research  
Broad Agency Announcement and OSD  
Rapid Innovation Funding Overview***

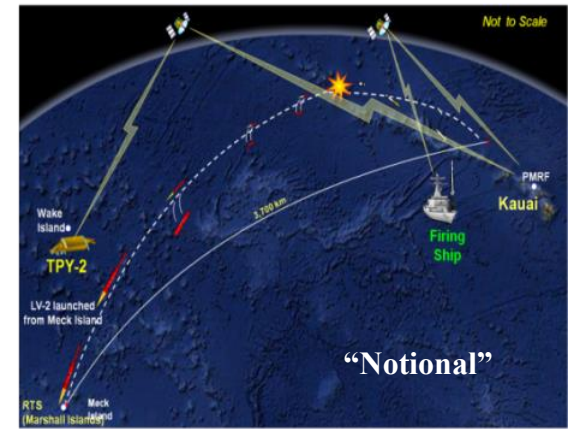
**Advanced Technology  
Missile Defense Agency**



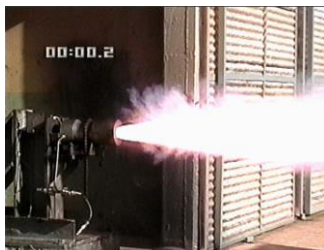
# Advanced Research

## Technical Objectives

- Fund relevant, advanced Research and Development (R&D) at domestic universities and small businesses
- Exploit breakthroughs in science to offer robust technical improvements to BMDS
- Build portfolio of revolutionary technology to support and enhance BMDS
- Develop holistic partnerships
- Educate future scientists and engineers



**Data Fusion and Tracking Algorithms**



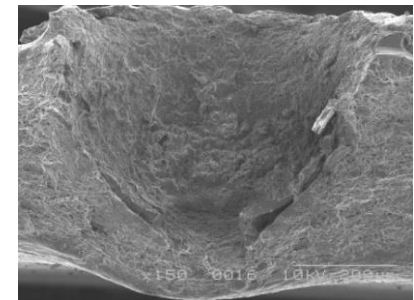
**Solid Divert & ACS**



**High Energy Lasers**



**Plume Signature Modeling**



**High Velocity Impact Studies**



# Planned Technology Investments

## Investment Area

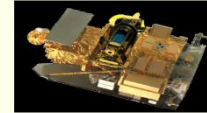
## Vision

## Investment Roadmap

### *Persistent Discrimination*

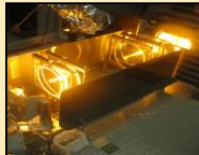


Capitalize on persistent, multi-phenomenology sensors to maximize the discrimination capability of our BMDS architecture



- Precision tracking demonstrations
- Discrimination demonstrations
- Deploy Airborne or Space-based Prototypes

### *High Power Lasers*

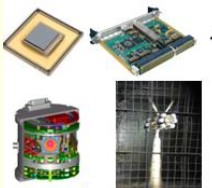


Integrate high power lasers into the BMDS architecture for a broad range of missile defense missions



- Lab experiments
- UAV-borne Laser Flight tests

### *Common Kill Vehicle Technology*



Develop common kill vehicle technology for insertion into GBI and SM-3 programs that addresses the future threat



- Component R & D
- Demonstrate prototypes
- Develop and Deploy Discriminating and Multi-object kill vehicles

### *Advanced Research*



Pursue high-risk and high pay-off technologies for the next Ballistic Missile Defense System



- Exploit emerging technologies
- Partner with our Nation's small businesses and universities
- Transform new technologies into applications for insertion into the BMDS

Experimentation

Proof of Concept

Development



# What is a Broad Agency Announcements (BAA)

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- **A competitive research and development contracting approach in the form of a general agency announcement:**
  - Identifies areas of research interest (basic and applied)
  - Includes criteria for selecting proposals
  - Solicits participation from all offerors capable of satisfying the Governments needs
- **Primary objective is to encourage participation by science and technology firms and educational institutions in meeting general research and development goals for innovative ideas and approaches.**
- **Meet full and open competition requirements "The Competition in Contracting Act of 1984."**
- **Evaluates proposals based on peer or scientific reviews against individual merits rather than against each other.**



# Broad Agency Announcements (BAA) Program

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- **Missile Defense Science & Technology Advanced Research (MSTAR)**
  - Open continuously for proposals from universities
    - Broad Agency Announcement (<http://www.fbo.gov>)
  - Research topics revised annually
  - Basic and applied research
  - MDA is seeking strategic alliances with universities
  - Two year base period with one year option
    - Base period \$400,000
    - Option year \$200,000
- **Advanced Technology Innovation Broad Agency Announcement (ATI BAA)**
  - Open continuously to university and commercial vendors
  - Contract value not limited
  - Link: [http://www.mda.mil/business/research\\_opportunities.html](http://www.mda.mil/business/research_opportunities.html)



# BAA: Source Selection

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- **MDA receives white paper**
- **Evaluation team evaluates and makes recommendations for award based on a peer or scientific review process IAW with FAR 35.016(d) and (e)**
- **Technical evaluator(s) uses criteria IAW the BAA to score white paper**
  - Technical merit
  - Capabilities
  - Management
- **BAA Selection Official makes selections based on the evaluation criteria IAW the BAA, and MDA funding and technology priorities**



# Rapid Innovation Fund (RIF) Program

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- **Established under the FY11 Defense Authorization Act (Section 1073)**
  - A competitive, merit-based program
  - Accelerate fielding of innovative technologies into military systems
  - All MDA RIF projects are SBIR Phase II Follow-on
- **Key Requirements:**
  - Satisfy an operational or national security need
    - Accelerate or enhance military capability
  - Reduce
    - Technical risk
    - Cost: Development, acquisition, sustainment, or lifecycle
  - Improve timeliness and quality of test and evaluation outcome
  - Provide approach for use by an acquisition program
  - Typical award length 24 months
  - Award values up to \$3M



# RIF: Source Selection

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- **Two-Step Competitive Process**

- Step 1:

- Military Services and/or OSD Office of Small Business Programs (OSBP) issue solicitations (BAAs)
- Open for 60 Days
- Industry Response: 3-5 page White Paper and Quad Chart
- Evaluations are rated

- Step 2:

- Highest rated evaluations receive invite to submit full proposal
- Successful proposals lead to award





# Suggested Resources

**MISSILE DEFENSE AGENCY**  
DEPARTMENT OF DEFENSE

MAKING BALLISTIC MISSILE DEFENSE A REALITY

**SBIR/STTR**  
Small Business Innovation Research and Small Business Technology Transfer Programs

NEWS Outreach MDA Resources Related Links SBIR STTR

**MDA SBIR Industry Day 2008 - Presentations:** MDA SBIR/STTR Industry Day recently took place on August 6-7 at the Gaylord National Hotel in National Harbor, MD. The Industry Day focused on enhancing the SBIR and STTR Process for MDA and the Small Business Community. [Presentations from the conference](#) are currently available for download.

### Missile Defense Agency SBIR and STTR Programs

The Missile Defense Agency (MDA) Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs issue solicitations once per year. MDA participates within the Department of Defense (DoD). 3 and .8 solicitation, which is issued simultaneously in the August timeframe. MDA makes SBIR/STTR Phase I awards up to \$100k and the nominal Phase II award amount is \$1.0M. Previous SBIR and STTR topics, including the most recent SBIR 08.3 and STTR 08.B topics, are available on the [DoD SBIR/STTR website](#).

The goal of the MDA SBIR/STTR Program is to prioritize projects at the Ballistic Missile Defense System (BMDS) level, address BMDS gaps or foster new BMDS capabilities and to increase award amounts on projects based upon increased relevance to the BMDS.

The MDA SBIR program also issues one Phase II Transition (P2T) solicitation per year. The purpose of the P2T program is to encourage the transition of SBIR projects into the DoD. Only firms with active DoD SBIR Phase II contracts are eligible to participate in the P2T program. Learn more about the P2T program in the [SBIR Phase II Transition section](#) of the website.

### DoD Listserv

Since October 2002, all DoD SBIR and STTR solicitations in accordance with the Government Paperwork Elimination Act (GPEA) solicitations and events, then subscribe to their listserv at [www.dodsbir.net](#)

### 5th Annual MDA SBIR/STTR Industry Day

The 2009 Missile Defense Agency Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Industry Day will be held in Long Beach, CA on August 11-12, 2009. Industry Day will focus on enhancing the SBIR and STTR process for MDA and the Small Business Community.

Small Businesses will have the opportunity to sign up for one-on-one sessions with key MDA technical representatives and prime DoD contractors. This will be a great opportunity during the DoD pre-solicitation period (July 27, 2009). For reasons of competitive fairness, direct communication between potential bidders and topic authors will not be allowed after August 24th - the last day of the SBIR and STTR pre-solicitation period. Additional details on Industry Day and registration information will be available in the coming months.

**MISSILE DEFENSE AGENCY**  
U.S. DEPARTMENT OF DEFENSE

HOME ABOUT US BMD BASICS NEWS / RESOURCES CAREERS DOING BUSINESS

Dec. 5, 2008 - A ground-based interceptor is shown shortly after liftoff from Vandenberg Air Force Base, Calif.

**Quick Links**  
2009 MDA Math Challenge Week  
Proposed European Assets  
2009 BMDS Booklet (pdf)  
Budget Information  
Technology Transfer  
Environmental Information  
MDA Safety and Quality Information  
RSS Feeds

**Latest News**

**16 APR 09** [SECOND SUCCESSFUL ROCKET MOTOR TEST OF NEW TARGET](#) (pdf)  
The two-stage launch vehicle, or LV-2, is MDA's newest target system and will be used as an intermediate-range target in a flight test later this year.

**13 APR 09** [KINETIC ENERGY INTERCEPTOR PREPARES FOR FLIGHT TESTING WITH SIMULATED LAUNCH COUNTDOWN](#) (pdf)  
A simulated launch countdown was executed as a risk reduction effort in preparation for the first flight test of the high-acceleration vehicle.

**DEPARTMENT OF DEFENSE**  
*Resource Center*  
**Small Business Innovation Research**  
www.dodsbir.net

**SEARCH**

- AWARDS**  
DoD SBIR & STTR Awards
- TOPICS**  
Current DoD SBIR & STTR Topics
- SITIS**  
Interactive Topic Info System

**INTEREST**

- ABOUT SBIR/STTR
- CURRENT SOLICITATION
- SELECTION LISTINGS
- CONFERENCES
- DESK REFERENCE
- MAJOR ACQUISITION LIAISONS
- SUCCESS STORIES
- FIRMS IN THE NEWS
- SBIR ANNUAL REPORT
- STTR ANNUAL REPORT
- FAST TRACK/PHASE II ENHANCEMENT
- COMMERCIALIZATION PILOT PROGRAM

**HELP**

- HELPPESK**  
Answers Questions About DoD SBIR & STTR
- WEBSITE**  
Main Website for More Information
- LISTSERV**  
Subscribe to Receive Program Notices and Updates
- CONTINUOUS LEARNING**  
A library of SBIR Program Resources

**SUBMISSION**  
DoD SBIR/STTR Proposal Submission

### MISSILE DEFENSE AGENCY HOSTS MATH CHALLENGE WEEK

MDA will provide speakers along with engineers and scientists who have volunteered to educate students in math, science and engineering as it directly relates to the Agency's mission.

### MISSILE DEFENSE AGENCY PRESENTS RONALD W. ELCH AWARD TO GENERAL LARRY D. WELCH

General Welch received the award for his commitment and dedication associated with defending the U.S. against ballistic missile attack.

### NAVY COMPLETES AIR AND BALLISTIC MISSILE





# Web Sites

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## [www.mda.mil](http://www.mda.mil)

- **Missile Defense News, Images, Videos, Fact Sheets**
- **BMDS Overview, BMD Basics**

## [www.mdasbir.com](http://www.mdasbir.com)

- **MDA SBIR/STTR Information**
- **Past awards**
- **“How To” tutorials for submitting proposals**

## [www.mdatechnology.net](http://www.mdatechnology.net)

- **Google indexing of 300+ individual articles**
- **Company News links visitors to press releases**
- **Real-time uploads of technology info and fact sheets**