2006 STRATEGIC INTENT

of the Missile Defense Agency


MISSILE DEFENSE AGENCY
GMD JOINT PROGRAM OFFICE
MISSILE DEFENSE AGENCY
First to Engage
KINETIC ENERGY INTERCEPTORS
MISSILE DEFENSE AGENCY
AEGIS BALLISTIC MISSILE DEFENSE
MISSILE DEFENSE AGENCY
DEPARTMENT OF DEFENSE
MISSILE DEFENSE AGENCY
SPACE TRACKING AND SURVEILLANCE SYSTEM
MISSILE DEFENSE AGENCY
BMDS SENSORS DIRECTORATE
MISSILE DEFENSE AGENCY
TERMINAL HIGH ALTITUDE AREA DEFENSE
MISSILE DEFENSE AGENCY
AIRBORNE LASER

Lt. Gen. Henry A. "Trey" Obering III
Director, Missile Defense Agency

Director's Message

I am pleased to present the *Strategic Intent of the Missile Defense Agency*. It is designed to communicate our agency's vision, guiding principles and personal values, and strategic goals and objectives to chart our course for the future. I expect the *Strategic Intent* to become the first point of reference for all of us in MDA, for our key stakeholders, including others in the Department of Defense, and most importantly, for the U.S. Congress and American people, whose support is critical to our success.

The foundation for the *Strategic Intent* has been laid in the **National Missile Defense Act of 1999**[1], the **National Policy on Ballistic Missile Defense**[2], and the **National Defense Strategy**[3]. They emphasize the growing threats from ballistic missiles – many of which can be armed with weapons of mass destruction. These missiles are being proliferated at an alarming rate around the world and with increasing ranges and more sophisticated countermeasures. State and non-state actors may want to use weapons of mass destruction carried on ballistic missiles to blackmail and intimidate us and even murder hundreds of thousands of people. In response, the United States must develop and deploy ballistic missile defenses drawing on the best technologies available. Our **mission** at MDA is to develop and field an integrated, layered, ballistic missile defense system to defend the United States, its deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight.

Drawing on two decades of research, the Missile Defense Agency, established in 2002, has made remarkable strides in developing and fielding the Ballistic Missile Defense System (BMDS). For the first time in 60 years, the United States can defend against some ballistic missile attacks, while we continue to develop, test, and field an increasingly capable system of interceptors, sensors and command and control, battle management, and communications systems to improve the depth, range, and reliability of our defenses. Our successes can be attributed to a dedicated team of professionals – the thousands of people who work hard every day to advance and support our interests.

[1] Public Law 106-38, signed on July 22, 1999.
[2] National Security Presidential Directive (NSPD)-23, dated December 19, 2002.
[3] "The National Defense Strategy of the United States of America," March 2005.

My **vision** for MDA is a seamless integration of technologies, operational concepts, and highly skilled professionals to create an overwhelming advantage against enemies who would use ballistic missiles to threaten or even attack us. In pursuit of this vision, I expect everyone in MDA to adhere to certain **guiding principles**:

- Deliver on our promises to the warfighter
- Base our decisions on demonstrated results and knowledge
- Establish an environment of open communications
- Build an integrated professional team who trust and rely on each other
- Minimize ambiguities in accountability and responsibility
- Implement innovations to optimize cost- and performance-effectiveness
- Encourage prudent risk-taking to achieve success

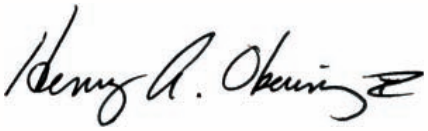
In doing so, we in MDA must remain true to a common set of **personal values**: dedication to the Nation, empowered teamwork, professional excellence, and personal integrity.

We will focus on several critical areas: organizational excellence, an effective core competency, capability enhancement, and productive partnerships. In these areas, MDA will simultaneously pursue seven **strategic goals**:

1. Recruit, retain, and develop a high-performing and accountable missile defense workforce
2. Complete fielding, verification, and transition of the initial BMDS capability
3. Support the operations and sustainment of capabilities fielded to the warfighter
4. Develop an integrated future capability based on a comprehensive and collaborative systems engineering process
5. Execute an increasingly integrated and complex test program to build confidence in system performance
6. Maintain a strong research and advanced development program focused on continual improvement of the BMDS
7. Implement the international strategy for the BMDS to expand our allied collaboration

These seven **strategic goals** chart our future course. Embedded in each of these broad goals are many strategic objectives that help to define more specifically what MDA is trying to achieve. Under the first goal, for example, we will minimize the impact of Base Realignment and Closure relocations on MDA's mission by committing sufficient resources to retain and recruit a diverse workforce with needed skills, knowledge, and abilities. The remainder of this document discusses each of the broad strategic goals and their specific strategic objectives.

I am convinced that we will achieve our *Strategic Intent*, if only because we must. While the stakes are high, the price of failure is incalculable. I look forward to working with each of you in bringing it forward to reality.



HENRY A. OBERING III
Lieutenant General, USAF
Director, Missile Defense Agency
October 2006

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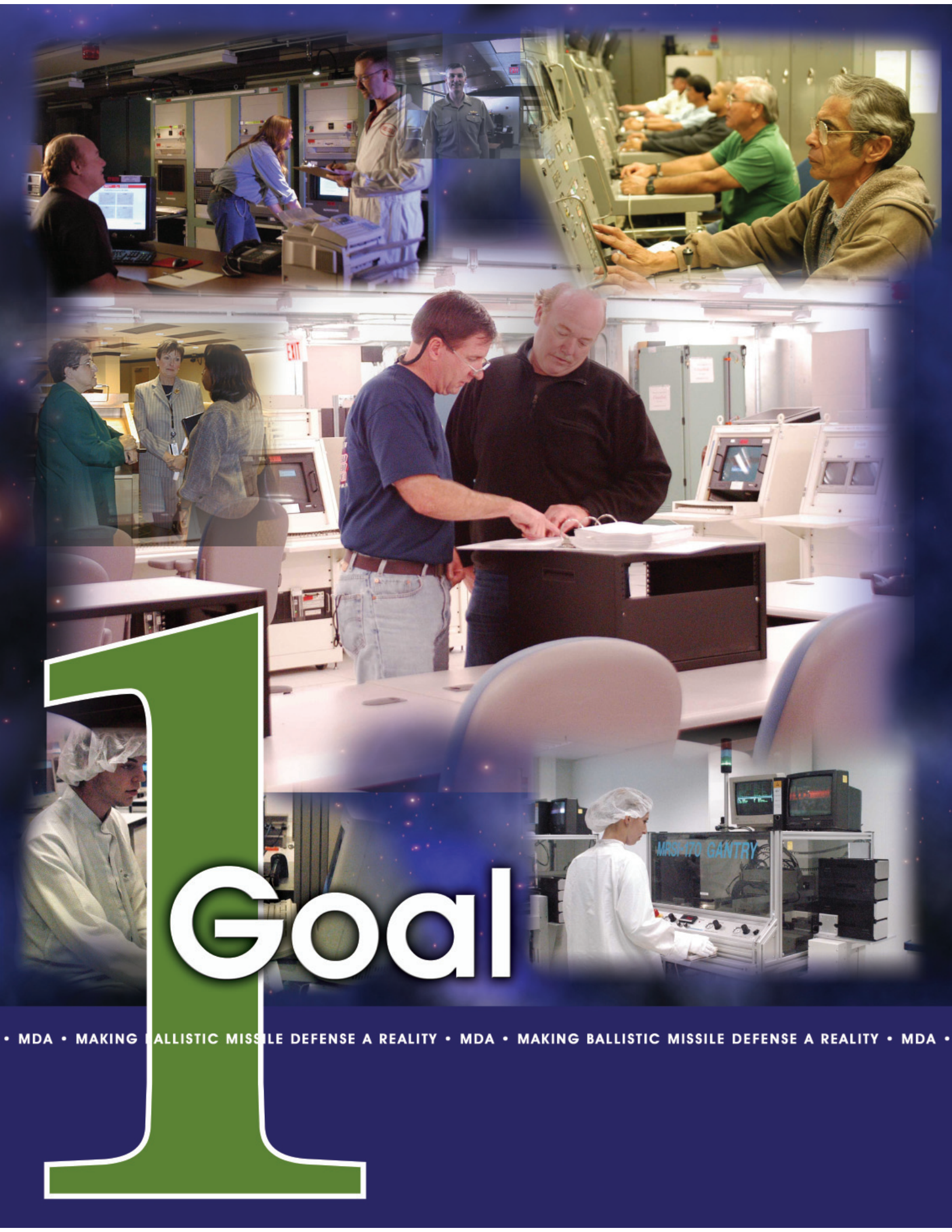
"The new strategic challenges of the 21st century require us to think differently, but they also require us to act. The deployment of missile defenses is an essential element of our broader efforts to transform our defense and deterrence policies and capabilities to meet the new threats we face."

President George W. Bush,
December 17, 2002

Strategic Goals and Objectives

The goals and objectives identified in this *Strategic Intent* describe what MDA is trying to achieve to meet the difficult challenges associated with defending against all ranges of ballistic missile attacks in all phases of flight. They commit the agency to acquiring highly effective technologies, working cooperatively with the warfighter, seeking out international partners, and maximizing the knowledge, skills, and abilities of our workforce.



1 Goal

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Goal 1: Recruit, retain, and develop a high-performing and accountable missile defense workforce

To develop and field an integrated ballistic missile defense system, MDA must have the right mix of expertise working in a results-oriented organizational culture. This requires building a workforce that is committed, diverse, adaptable, and team-oriented at all levels of MDA. To ensure our continued success, we will take steps to minimize the impact on MDA from the impending shift of much of our workforce out of the National Capital Region, to accommodate the requirements of the Base Realignment and Closure (BRAC) commission. We also need to maintain a steady stream of strong leaders who can set clear direction, adapt to changing circumstances, manage change creatively, and reward and reinforce desired behaviors and results. Consistent with Goal 1, MDA will:

Objective 1.1: Align human capital planning with MDA's mission and DoD's civilian human capital strategic goals

Managing and reshaping the workforce will require leadership commitment and a significant investment of resources. Program leaders will be involved in the process of identifying critical skills and the number of skilled people needed to meet future requirements. They will structure the organization to respond to changing business needs and to provide optimal service at the lowest cost. Human capital programs and resources must be integrated into the budget and other decision processes if we are to ensure that we have the right people in the right place at the right time.

Objective 1.2: Develop and maintain a mission-ready workforce

Base closures, outsourcing, and technological innovations have increased the need for a highly capable workforce characterized by agility, flexibility, and diversity. Competition is strong for high-quality, well-educated, and highly trained employees. Our recruitment strategies will be innovative and will highlight rewarding work and flexible compensation linked to performance and contribution to the mission. Effective recruitment strategies will minimize the impact of the BRAC commission. We will continue to strengthen and expand our competency-based approach to fulfilling requirements. Career Guides, individual development plans, and gap analyses of competencies provide important talent and knowledge management information that impact our Corporate University programs and policies.

Objective 1.3: Create a results-oriented performance culture

In developing a results-oriented performance culture, we have gotten off to a good start through the DoD Civilian Acquisition Workforce Personnel Demonstration Project (AcqDemo). Our transition to the National Security Personnel System (NSPS) will continue the process. Both performance management systems differentiate pay at different levels of performance and contribution. NSPS further delineates performance according to supervisory responsibilities. Also, our performance appraisals for Senior Executive Service (SES) officers, managers, and employees will be linked to MDA's mission. Policies and programs must continue to emphasize the results-oriented culture that we want to establish and maintain.

Objective 1.4: Establish a cadre of world-class enterprise leaders

Leaders in MDA must be effective in aligning mission requirements with human, financial, and other resources to get results. They must be good communicators who listen and speak effectively. They will be continually drawn from the civil service and military services, from various disciplines, and from diverse backgrounds and cultures. We will provide them with opportunities for personal growth and will hold them accountable for demonstrating mission-focused, creative, ethical, respectful, adaptable, and team-oriented leadership.

We will assure continuity of leadership and knowledge through succession planning and development. We will participate in executive development programs. By linking selection for such programs to applicants' Contribution-Based Compensation and Appraisal System (CCAS) scores, we will strengthen the results-oriented environment and our leadership pool. The Career Intern Program is another source of talent, and we will give attention to retaining the interns, especially those who show leadership potential. Also, we will document our Senior Executive Service (SES) competency requirements; senior officers will use them in writing goals and evaluations for SES officers and assessing those in the SES pipeline.

Goal 2

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Goal 2: Complete fielding, verification, and transition of the initial BMDS capability

Our highest near-term priority is building a sound foundation for the ballistic missile defense system. This foundation will provide not only some initial defensive capability against enemy missiles, but also the basis for further improvements. We will provide the joint warfighter a well-defined and -understood capability to defeat long-, intermediate-, medium-, and short-range ballistic missiles targeted against the U.S. homeland, our deployed troops, friends, and allies. After emplacing the assets, we will test them as an integrated system and in an increasingly realistic environment. We will involve the warfighter, as appropriate, in fielding and testing. Consistent with Goal 2, MDA will:

Objective 2.1: Emplace and make operational sensors, interceptors, and Command and Control/Battle Management and Communications (C2BMC)

We have already emplaced a number of BMDS assets – including sensors, interceptors, and C2BMC—that are designed to be operationally effective against some intercontinental ballistic missiles. We will emplace and make operational a system that can achieve a number of diverse functions, such as detecting and tracking enemy missiles; predicting accurate impact points; safeguarding against inadvertent firing and misidentifying space launches; launching interceptors that successfully destroy enemy missiles; and achieving a hit-kill assessment.

We will work closely with the warfighter to implement the BMDS Transition plan to achieve acquisition and fielding of the BMDS. MDA will also support the warfighter in defining a concept of operations – the tactics, techniques and procedures that are needed for missile defense forces to defeat enemy attacks.

Objective 2.2: Complete end-to-end tests of BMDS capability to intercept intermediate- and long-range ballistic missiles

Through testing the initial BMDS capability end-to-end in operationally realistic conditions, we will characterize the system's capability and determine to what extent our Engagement Sequence Groups (ESGs) can be executed. ESGs are the integration of sensors, interceptors, and command and control elements—the complete kill chain from the time the threat missile is first detected through the intercept of the target. The end-to-end testing will also form the basis for an updated military utility assessment by the warfighter. *(For a discussion of the broad range of BMDS testing, see Goal 5.)*

Goal 3

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Goal 3: Support the operations and sustainment of capabilities fielded to the warfighter

MDA will deploy BMDS components that are operationally ready and logistically sustainable. We will ensure logistics are in place to support the fielding of the initial BMDS capability. We will support the warfighter in developing and implementing the needed Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) to field the BMDS. Consistent with Goal 3, MDA will:

Objective 3.1: Improve the reliability, availability, and maintainability of BMDS technologies

With input from the combatant commands and the military services, we will continuously focus on developing components to greater levels of reliability, availability, and maintainability and life-cycle affordability. We will track operational availability and actual operations and sustainment costs to identify areas where design improvements in BMDS components and subsystems may be needed. Also, we will design and improve the BMDS to ensure safety for system operators.

Objective 3.2: Train the warfighter to operate and sustain the BMDS capability

In the area of training, MDA will provide initial training for the warfighter in the most realistic environment possible and to the highest standards of professionalism. With MDA's support in curriculum development, the military services will take the lead role in the training of replacement personnel, refresher training, and building additional proficiencies. A decision-making body, comprised of BMDS stakeholders, will develop and implement training policies for the BMDS and provide a forum for coordination, issue resolution, exchange of information, and planning for the evolution of BMDS training.

Goal 4

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Goal 4: Develop an integrated future capability based on a comprehensive and collaborative systems engineering process

MDA's systems engineering, through its technical expertise, tools, and facilities, plays a lead role in developing the warfighters' capacity, both in equipment and proficiency, to dominate the missile defense battle space and defend the United States and its allies from ballistic missile attacks. We know, based on input from the intelligence community, that the threat we face is dynamic and not entirely predictable. We will identify where performance gaps exist in BMDS capabilities and determine what improvements are required to close those gaps. We also know that missile defense technologies are continually advancing. Therefore, we need to be able to integrate the latest technologies into the system over time to upgrade the system, improve its performance, and expand the protection coverage to meet new security requirements.

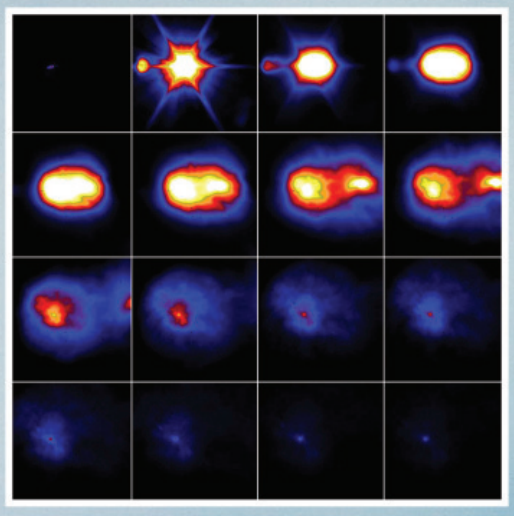
MDA's systems engineering process will be highly collaborative. For example, the Combatant Commands will be involved through the Warfighter Involvement Process in all phases of the systems engineering process. The process will also be event-driven and knowledge-based. Consistent with Goal 4, MDA will:

Objective 4.1: Develop and enforce the overarching BMDS technical architecture, technical objectives and goals, and system-level requirements

To build a more integrated BMDS, we will focus our systems engineering efforts where we expect to get the biggest payoffs. Of utmost importance will be our efforts to provide top-down, overall architectural direction for system development and then assess compliance with such direction to ensure the BMDS functions as an integrated system. We will match and connect our inventory of sensors and interceptors to expand detection of enemy missiles and our zones to engage and defeat them. This netting of sensors and interceptors will expand the battle space and the defended area and enhance our ability to handle complex threats. We will also move to realize common communications and data links and integrated command and control capabilities to provide the warfighter with improved planning, situational awareness, and engagement execution.

Objective 4.2: Provide technical solutions for transitioning from a system of systems to a fully integrated BMDS

We will develop the means to provide a single integrated ballistic missile defense picture; classify threat missiles; and interoperate with command, control, communications, and computer systems and infrastructure of the Department of Defense. We will deploy forward and mid-tier sensors and net and manage them end to end for birth-to-death tracking of enemy missiles. We will continually field new connectivity bandwidth upgrades and quality of service improvements as required for the integrated BMDS capability. As the threat becomes increasingly sophisticated in its use of countermeasures, we will draw on systems engineering to design integrated discrimination capabilities that stay ahead of the threat.



Goal 5

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Goal 5: Execute an increasingly integrated and complex test program to build confidence in system performance

Central to our success as an agency is our ability to execute an integrated, comprehensive, and phased test program. We will test components, subsystems, and systems early in the development cycle. We will also use tests to provide data to assess current performance and support capability readiness decisions; assess existing development and enhancement capabilities; and identify design areas where technology can increase overall system capability. Three basic test methodologies are used: ground testing, flight testing, and modeling and simulation. Consistent with Goal 5, MDA will:

Objective 5.1: Conduct ground tests to demonstrate components and subsystems and begin characterizing and assessing system-level capabilities and performance

Our ground test program brings together and demonstrates the hardware and software that is being integrated into the BMDS or is being considered for inclusion. We will use a variety of controllable and flexible testing venues, from high-fidelity hardware-in-the-loop tests to operator-in-the-loop interactions. Ground testing is ideal as a cost-effective means to regularly measure technology readiness levels of components and subsystems. We will also use ground testing, for example, to analyze functional interfaces between components, evaluate target/intercept boundary conditions, and collect data to support modeling and simulation.

Objective 5.2: Conduct flight tests to demonstrate subsystems and the integrated BMDS, and characterize and assess system-level capabilities and performance

We will use flight tests to provide relevant and operational environments to demonstrate the functionality of subsystems and the integrated BMDS; demonstrate interoperability among the various BMDS subsystems; and provide data to assess BMDS performance against performance goals. Flight testing can be costly, but it is essential for characterizing capabilities to defeat the evolving threat and to execute various Engagement Sequence Groups. We intend to conduct at least two integrated flight tests annually against long-range ballistic missile targets, and many more against short-, medium-, and intermediate-range targets.

Objective 5.3: Use high-fidelity modeling and simulation to measure system performance

Modeling and simulation, anchored in ground and flight test program data, is a cornerstone for both developing the BMDS and for gaining confidence in its performance, given that the large amount of flight data necessary to otherwise characterize the system is cost prohibitive. We will acquire, develop, manage, direct, and execute high-fidelity models and simulations necessary for building and operating the BMDS. We will de-emphasize stove-piped modeling efforts and invest in updating overall BMDS simulations and tools for use in ground testing, war games, and system-level performance assessment.

Goal 6

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Goal 6: Maintain a strong research and advanced development program focused on continual improvement of the BMDS

We must continually do research and development to evolve and improve the BMDS, because the threats against us become more complex over time and because technological progress offers new opportunities to create a more effective and efficient system against those threats. We must fill capability gaps and eliminate system vulnerabilities, thereby increasing the overall performance and reliability of the system. Consistent with Goal 6, MDA will:

Objective 6.1: Mature key technologies to the point where they can be considered for fielding in the BMDS

We will seek out and develop new and innovative concepts and technologies that can be applied across the BMDS to stay ahead of the ballistic missile threat, improve system performance and reliability, and lower life-cycle costs. We will stimulate greater innovation through out-of-the-box thinking and seek out the most promising technologies from U.S. and international sources. We will use Centers of Excellence to foster technology transition and develop effective approaches for addressing challenges that cut across elements and components.

One of the most critical areas for advanced development is enhancing our ability to discriminate threat objects from decoys and debris. For example, our Project Hercules will develop robust detection, tracking, and discrimination algorithms to counter increasingly sophisticated countermeasures and evolving missile threats.

Objective 6.2: Achieve knowledge points to minimize risks in BMDS development and production

Knowledge points are, in effect, exit criteria for moving from one phase to another in an acquisition program. Generated by planned events, knowledge points drive key decisions. For example, they may drive decisions to continue or terminate development or to adjust funding and schedule. We will tailor knowledge points to critical risks—"showstoppers"—that are unique to each technology. For example, the Airborne Laser has an upcoming knowledge point in 2008 focused on its ability to shoot down a target missile. This lethal shoot-down will help us to determine the feasibility of using lasers for boost-phase missile defense in the near term.

Objective 6.3: Execute commonality initiatives for sensors and weapons

MDA expects to gain considerable efficiencies from identifying common components for its assets. We will undertake functional reviews to help us target opportunities for such commonalities and make acquisition and contracting decisions based on these reviews. For example, we will seek to use common hardware and software for X-band radars under the Terminal High Altitude Area Defense and Forward-Based X-Band-Transportable programs.

Goal 7

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Goal 7: Implement the international strategy for the BMDS to expand our allied collaboration

Recognizing that fielding effective ballistic missile defenses must be a global effort that welcomes and accommodates allied participation, we will expand ballistic missile defense systems and proficiencies among our allies and friends, sharing both the burdens and successes of our efforts. In doing this, we will work closely with other nations to develop, field, and integrate global missile defense capabilities that perform to the highest standards of mission assurance, reliability, and investment value. Consistent with Goal 7, MDA will:

Objective 7.1: Increase the missile defense coverage to our deployed forces, allies, and friends

Emplacing and protecting assets fielded overseas is critical to the effectiveness of the BMDS in defending the U.S. homeland and protecting friends and allies from attack. For example, we will seek to reach agreements with our allies and friends to place forward-based radars and interceptors on their land. Both radars and interceptors will be critical in providing early detection and tracking of enemy missiles and defeating them before they reach the U.S. homeland or our allies and friends.

Objective 7.2: Increase allied participation in developing and deploying missile defenses

The security and economic interests of our allies are inextricably tied to our own. As a result, we will seek opportunities – in conjunction with the Department of Defense and other organizations of the U.S. government – to increase our allies' acquisition of BMDS technologies where appropriate. One area of cooperation is our joint development efforts for the Aegis Ballistic Missile Defense program with Japan. We are also coproducing the Arrow Weapon System with Israel. Our security and economic interests are also advanced by the Japanese acquisition of defensive capabilities against short- and medium-range ballistic missiles. Over time, we will foster increased integration of U.S. and allied ballistic missile defense capabilities.

"It is true today as it was ten years ago that this effort holds the promise of changing the course of human history, by freeing the world from the ominous threat of ballistic missile attack. Given the choice, shouldn't we seek to save lives rather than avenge them?"

Statement by former President Ronald Reagan on the Tenth Anniversary of the Announcement of the Strategic Defense Initiative

SDIO
1984-1994

BMDO
1994-2002

MDA
2002-Present

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