MISSILE DEFENSE AGENCY

News Release

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Missile Defense Agency Accomplishments Throughout 2007

Fielding (Weapons)

- Emplaced 9 Ground-Based Interceptors (GBI) (long-range) at Fort Greely, Alaska, and 1 GBI at Vandenberg AFB, Calif. (total 21 in Alaska, 3 in California)
- Delivered additional 13 Aegis SM-3 interceptors (short- to intermediate-range); total of 21 SM-3s in inventory
- Delivered required upgrades to 4 Aegis missile defense-capable engagement destroyers for a total of 7 Aegis Destroyers and 3 Aegis Cruisers

Fielding (Sensors)

- Cobra Dane radar (Shemya, Alaska) was certified by U.S. Strategic Command
- Completed operational testing of Fylingdales Early Warning Radar (United Kingdom) and Beale AFB, Calif. Early Warning Radar
- Achieved Air Force Space Command operational acceptance of existing missile warning and space surveillance missions for Fylingdales and Beale radars
- Achieved early capability delivery of Fylingdales radar
- Sea-Based X-band (SBX) radar successfully completed cold weather trials in early 2007
- SBX positioned to Pacific in September for successful intercept of a target launched from Kodiak, Alaska by a long-range ground-based interceptor missile from Vandenberg AFB, Calif.; SBX also successfully participated in important ground tests and the successful intercept of a target missile by the Japanese
- Completed Military Sealift Command review of SBX operations, crew, contract structures, and Adak facility issues (November 2007)
- Completed SBX mooring installation at Adak, Alaska, future homeport of the SBX (August 2007)
- Executed site activation and prepared transportable AN/TPY-2 X-band radar for deployment to Juneau, Alaska to participate in long-range Ground-based Midcourse Defense flight test in Spring 2008
- Transitioned another AN/TPY-2 radar to objective site at Shariki Air Base, Japan
- Began upgrade of existing Early Warning Radar at Thule, Greenland
- Radars aboard 7 Long-range Surveillance and Track Aegis ships are now available for operational use

Fielding (Command, Control, Battle Management and Communications)

- Incrementally fielded Spiral 6.0 software configuration
  - Completed Active Interface Direct Connection of C2BMC to Space-based Infrared System (SBIRS) for 24/7 Data Feed for Situational Awareness (February 2007)
  - Completed Ground-based Midcourse Defense software version interface (June 2007)
- Completed move of Ballistic Missile Defense Communication Node (BCN) and Auxiliary Communication (ACS) shelters (including base communication infrastructure) for AN/TPY-2 to the objective Shariki, Japan site and completed Readiness Demonstration (July 2007)
- Installed U.S. Pacific Command (PACOM) second Server Suite
- Installed Parallel Staging Network (PSN) at U.S. Northern Command, U.S. Strategic Command, U.S. Pacific Command and at Ft. Greely, Alaska to enable concurrent system development/testing and defensive operations

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- Established developmental satellite communications connectivity with Aegis ships
- Completed requirements verification of Spiral 6.2 software and installed on Parallel Staging Network at all C2BMC locations and at Shariki, Japan
- Fielded Spiral 6.2 software for operational use (December 2007)
- C2BMC successfully participated in 20 missile defense system-level events/wargames/exercises

Missile Defense Tests

- **Flight Tests – 9 successful hit-to-kill intercepts in 2007**
  - Five successful Aegis BMD intercepts of short- to medium-range separating and unitary targets, including a simultaneous engagement of two short-range ballistic missiles (April 26, June 22, November 6 (2 targets), December 17)
  - Three successful Terminal High Altitude Area Defense (THAAD) intercepts of short-range unitary targets in the atmosphere and in space (January 26, April 5, October 26)
  - Successful intercept of long-range target by operationally-configured ground-based long-range interceptor (September 28); test used operational crews from U.S. Northern Command and the threat – representative target missile followed a realistic threat trajectory
  - Successful demonstration of a simulated Ground-Based Interceptor engagement on a radar track from Sea-Based X-band Radar using a live target (March 2007)
- **Ground Tests**
  - Successful assessment of ability of the Ballistic Missile Defense System to simultaneously execute multiple Engagement Sequence Groups with the projected fielded and developmental baselines (September 10-28, 2007)
  - Successful distributed ground test demonstrated simultaneous execution of multiple Engagement Sequence Groups while using the Ballistic Missile Defense System operational elements and locations with associated operational communications (November 6-10, 2007)

Development Progress

- **Airborne Laser (ABL)**
  - First in-flight propagation of directed energy through ABL's turret
  - First active tracking of a non-cooperative airborne target
  - First atmospheric compensation between two airborne platforms
  - Demonstrated reliable & robust operation of the illuminator lasers in a demanding flight environment
  - First successful tracking of a vertically-dynamic target (F-16 aircraft zoom climb)
- **Kinetic Energy Interceptor (KEI)**
  - Completed booster hypersonic wind tunnel tests
  - Completed Modal Survey and Stage Separation Tests
  - Conducted two Stage 1 and one Stage 2 rocket motor static fires
  - Initiated avionics, ordnance and structure qualification testing
  - Acquired Facilities and Range support services for first booster flight
- **Aegis BMD**
  - BMD modifications to Standard Missile-2 Block IV updated (Sea-Based Terminal Defense); SM-2 uses upgraded Standard Missile-2 sea-based interceptor missiles to achieve a terminal phase intercept capability
- **Space Tracking and Surveillance System (STSS)**
  - Completed thermal vacuum testing on Space Vehicle 1
  - Completed STSS Demonstration Satellites ground software acceptance testing
  - Successfully integrated Payload 2 on Space Vehicle 2
  - STSS is preparing to launch the two satellites into orbit in Summer, 2008
- **Multiple Kill Vehicle (MKV)**
  - Completed static hot fire test of the carrier vehicle integrated divert and attitude control system
  - Delivered models and simulation framework for testing engagement management algorithms
  - Began development and testing of large format, 2 color focal planes
  - Delivered pathfinder carrier vehicle focal plane array

- **Near-Field Infrared Experiment**
  - Successful launch of NFIRE satellite in April 2007 from Wallops Island, Va.
  - Conducted flight test of NFIRE 2a on August 23
    - Successful launch of 2a target and demonstration of ability to guide a boosted target vehicle to within 4 km of NFIRE satellite
    - Significant boost phase data collection
- **Advanced Technology**
  - Successfully tested the Net-Centric Airborne Defense Element (NCADE), marking first intercept of a ballistic missile from an air platform and the first boost-phased intercept of a ballistic missile
  - Successfully demonstrated advanced focal plane array, quantum well infrared photodetector, processor, and radar technologies
  - Successfully tested technology enhancements for deployed capabilities (Aegis SPY-1 radar, C2BMC, BMDS sensors, and Ground-based Midcourse Defense) and capabilities currently under development (Airborne Laser)
- **International Program**
  - U.S.- Italy Ballistic Missile Defense Framework Agreement was signed; Denmark signed a Missile Defense Technology Agreement.
  - MDA currently has 28 active agreements with 11 nations and 16 agreements in staffing with 7 nations and NATO
  - Significant interaction and progress made with NATO and European allies on the European Site Initiative
  - Successfully conducted site surveys for the European Midcourse Radar in the Czech Republic; progress regarding siting and environmental assessments for proposed interceptor missile site in Poland
  - Established European Component Project Office to manage proposed missile defense deployment in Europe
  - Joint Program Office established to co-develop David's Sling Short Range Ballistic Missile Defense system to provide a defense against short range missiles/rockets
  - On-going collaboration activities with Japan, United Kingdom, Australia, Israel, Denmark, Italy, Germany, Poland, Czech Republic, Netherlands, Republic of Korea, Ukraine, Taiwan, India, and NATO
- **Transition and Transfer**
  - Aegis Block 04 Transition Agreement with U.S. Navy signed on March 9, 2007
  - Deputy Secretary of Defense designated U.S. Air Force as the lead military service for the X-band radar proposed for defensive operations in the Czech Republic
- **Support to Warfighter**
  - Juniper Cobra 2007 exercised joint contingency operations involving European Command and Israeli Defense Forces; U.S. missile defense elements tied into Israeli architecture via simulation for the first time
  - Transitioned Capability Demonstrations to Combined Test Force
  - Increased missile defense training and education participation with a 73 percent increase from 2006
  - Supported high visibility training sessions and provided 99 percent of Warfighter-requested training (Distributed Multi-echelon Training System)
  - For the first time, added Terminal High Altitude Area Defense (THAAD) missile defense system element to U.S. Central Command's Eagle Resolve 08
  - Provided Missile Defense Space Warning Tool support for 69 exercises and broadcast more than 9,000 missile events over the Integrated Broadcast Service
  - Co-developed Sea-based X-Band Radar Early Capability Delivery criteria and Operational Readiness and Acceptance process with U.S. Northern Command's missile defense operations group
  - Established the Missile Defense Agency's Operations Support Planning Team for crisis action response and planning support to U.S. Northern Command

Agency-wide Activities

- Successfully conducted the annual Missile Defense Conference in April 2007 and Multinational Missile Defense Conference in September 2007
- The Missile Defense Integrated Operations Center (Colorado Springs, Colo.) earned Colorado Peak Performance Foothills Award for 2007 for Excellence in Management and Engineering
- Base Realignment and Closure (BRAC)
  - Realigned more than 650 positions to Huntsville, Ala. since the start of FY 2006; a total of about 2,300 military, federal civilian and contractor positions are scheduled to relocate to Huntsville over next few years
  - Opened new Von Braun II facility in Huntsville to support 900-plus Missile Defense Agency personnel and to achieve initial BRAC realignment goals
  - Planning and design proceeded for new Von Braun Phase III facility on Redstone Arsenal and also for new Missile Defense Agency Headquarters Command Center at Ft. Belvoir, Va.

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