

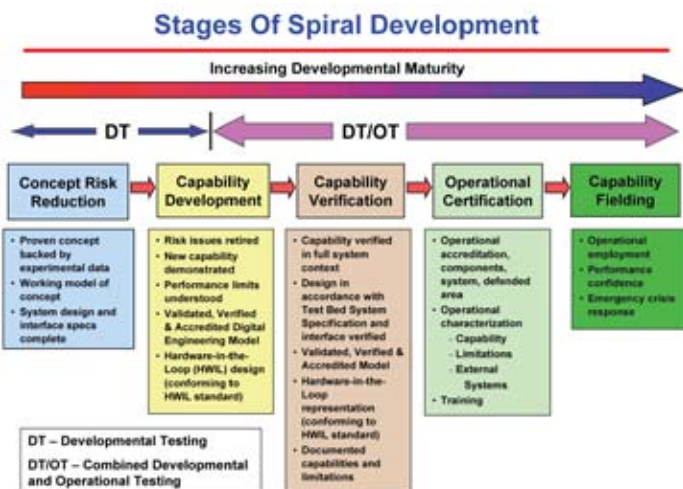


# BALLISTIC MISSILE DEFENSE SYSTEMS

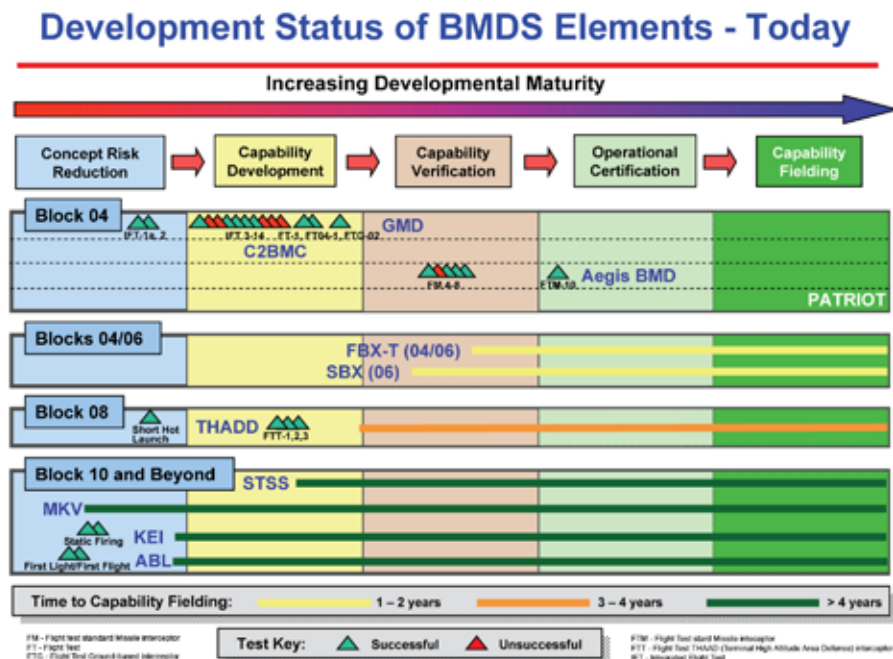
- Multiple Kill Vehicle (MKV) program
- Space Tracking and Surveillance System (STSS)

MDA uses a spiral development acquisition approach to develop and acquire the BMDS. Spiral development allows MDA to deliver missile defense capability in stages. The Agency explores, develops, verifies, certifies, and fields BMDS capabilities while conducting a comprehensive test program. Early testing - exploration and development - is element-centric. Later testing - verification, certification, and fielding - is BMDS-centric. The chart to the right defines the characteristics of each stage and their relationship to developmental testing and combined developmental and operational testing, in developing and maturing the BMDS.

Using spiral development acquisition, MDA develops technology and BMDS operational elements in two-year blocks. The BMDS Block 04 fielded a test bed architecture consisting of GMD, Aegis BMD, C2BMC (situational awareness capability only), and PATRIOT. Also part of Block 04, MDA fielded the initial FBX-T capability at Shariki, Japan, operationally designated AN/TPY-2 (FB). The BMDS Block 06 adds additional sensors, including SBX and new capability for FBX-T, and continues to evolve the C2BMC from situational awareness to battle management. The BMDS Block 08 will add THAAD to the BMDS architecture and continue the evolution of C2BMC.



The BMDS Block 10 and beyond currently intends to insert the technology programs into the BMDS architecture if these programs prove to have affordable and sustainable capabilities. Based on the definitions for each stage, the following chart depicts the DOT&E estimate of where each technology and developmental element maturity is today within this construct. The MDA test program is designed to mature each element over time.



This assessment report focuses on the current BMDS fielded architecture, including the sensor and technology programs, and associated developmental and combined developmental/

operational testing. PATRIOT has transitioned to the Army and is reported as an Army program.