DEFENSE ACQUISITIONS

Assessments of Selected Weapon Programs

What GAO Found

GAO assessed 62 weapon systems with a total investment of over $950 billion, some two-thirds of the $1.5 trillion DOD plans for weapons acquisition (see below). Several of these programs will be developed without needed technology, design, and production knowledge, and will cost more and take longer to deliver. Progress in acquisitions is measured by passage through critical junctures, or knowledge points: Are the product’s technologies mature at the start of development? Is the product design stable at the design review? Are production processes in control by production start? By these best practice measures, limited progress has been made by the programs GAO assessed. Fully mature technologies were present in 16 percent of the systems at development start—the point at which best practices indicate mature levels should be present. The programs that began development with immature technologies experienced a 32.3 percent cost increase, whereas those that began with mature technologies increased 2.6 percent. Furthermore, 27 percent of the assessed programs demonstrated a stable design at the time of design review and in terms of production, very few programs reported using statistical process control data to measure the maturity of production processes.

Effective program management and control are essential to executing a knowledge-based approach. However, DOD does not have an environment that facilitates effective program management. For example, key personnel are rotated too frequently. Further, DOD is increasingly relying on contractors to perform key management functions raising questions about the capacity of DOD to manage new weapon system programs.

Total Cumulative Planned Expenditures on Current Portfolio of Major Defense Acquisition Programs

![Image of a graph showing total cumulative planned expenditures on current portfolio of major defense acquisition programs. The x-axis represents years from 2000 to 2028, and the y-axis represents billions of 2007 dollars, ranging from 0 to 1,600. The graph shows an upward trend.]

Source: GAO analysis of DOD data.