TACTICAL AIRCRAFT

F-22A Modernization Program Faces Cost, Technical, and Sustainment Risks

May 2012

What GAO Found

Total projected cost of the F-22A modernization program and related reliability and maintainability improvements more than doubled since the program started—from $5.4 billion to $11.7 billion—and the schedule for delivering full capabilities slipped 7 years, from 2010 to 2017. The content, scope, and phasing of planned capabilities also shifted over time with changes in requirements, priorities, and annual funding decisions. Visibility and oversight of the program’s cost and schedule is hampered by a management structure that does not track and account for the full cost of specific capability increments. Substantial infrastructure costs for labs, testing, management, and other activities directly support modernization but are not charged to its projects. The Air Force plans to manage its fourth modernization increment as a separate major acquisition program, as defined in DOD policy and statutory requirements.

Comparison of Estimated F-22A Modernization Program and Related Costs (Nominal Dollars in Millions, not Inflation Adjusted)

<table>
<thead>
<tr>
<th>Year</th>
<th>Reliability improvements and structural repairs</th>
<th>Direct charges to modernization increments</th>
<th>Activities in support of modernization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,652</td>
<td>782</td>
<td>2,962</td>
</tr>
<tr>
<td>2012</td>
<td>3,070</td>
<td>6,655</td>
<td>1,951</td>
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Source: GAO analysis of U.S. Air Force data.

Testing of new capabilities to ensure operational effectiveness and suitability is ongoing. Results to date have been satisfactory but development and operational testing of the largest and most challenging sets of capabilities have not yet begun. Going forward, major challenges will be developing, integrating, and testing new hardware and software to counter emerging future threats. Other risks are associated with greater reliance on laboratory ground tests and relocating an F-22A lab needed to conduct software testing. While modernization is under way, the Air Force has undertaken parallel efforts to improve F-22A reliability and maintainability to ensure life-cycle sustainment of the fleet is affordable and to justify future modernization investments. But the fleet has not been able to meet a key reliability requirement, now changed, and operating and support costs are much greater than earlier estimated.

What GAO Recommends

GAO recommends that DOD evaluate capabilities to determine if future F-22A modernization efforts meeting DOD policy and statutory requirements should be established as separate major acquisition programs.

DOD concurred with our recommendation.

View GAO-12-447. For more information, contact Michael J. Sullivan, (202) 512-4841, sullivamm@gao.gov