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Implications of an Air Force Budget Downturn on the Aircraft Industrial Base

An Exploratory Analysis

Mark V. Arena, John C. Graser, Paul DeLuca

RAND Project AIR FORCE

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Summary

The U.S. Air Force is facing a number of challenges as a result of the current defense budget downturn along with the uncertainty of its timing and magnitude.¹ This report focuses on the challenge of modernizing the Air Force's aircraft fleet while trying to sustain the industrial base with limited funding. Complicating this challenge is that the pattern of Air Force spending has shifted dramatically away from new aircraft procurement since the previous spending downturn. Moreover, the emergence of a competitor with significant technical and economic capability is another major difference from the previous downturn.

Therefore, there is a need for careful strategic management of investment choices—and this goes beyond just aircraft. The Air Force will first need to define its capability priorities that fit within budget constraints, then use those priorities to shape a budget strategy. We explore six different budget strategies for aircraft procurement: from a new high-tech fleet to sustaining and modifying the existing one. Each strategy under a constrained spending future results in challenges and issues for the industrial base. The Air Force will need to help mitigate industrial base problems that result from their chosen budget strategy—but some issues may be beyond their control. There are lessons from foreign acquisitions that the Air Force can leverage to avoid pitfalls. Most importantly, shortfalls in both industry and government skill bases can cause significant problems later during execution. Finding ways to sustain key skills during a spending downturn will be important for the future and potentially produce longer-term savings.

Finally, a few other observations that must be considered as the Air Force moves forward:

- The aircraft industrial base (AIB) could consolidate again, potentially morphing into sole sources (or sole-source teams) in many areas. This would require the Air Force to rethink how it works with industry and how it formulates acquisition strategy, as competition on individual programs might be infeasible.
- Military aircraft design and production requires some unique skills not found in the commercial aircraft segment and that are difficult to rebuild. While industry must manage these skills and has primary responsibility for them, the Air Force also has a critical role in ensuring these skills are preserved. Few new program starts are projected, so research, development, test, and evaluation (RDT&E)

¹ As of the finalizing of this report in mid-2013, Air Force planners face great uncertainty with respect to future budgets. Fiscal year 2013 did have mandatory reductions required by the 2011 Budget Control Act. However, cuts in future budget years remain uncertain.

funds will be the primary lever the Air Force has to protect technical skills. The Air Force should consider devising a strategy that focuses the limited RDT&E likely to be available on technical areas that are not supported by commercial development.

- The Air Force must find ways to slow the progression of higher unit procurement costs and flying hour costs for new systems if it is going to be able to recapitalize/modernize effectively.