

**Statement of Deputy Secretary of Defense Gordon England**  
**Joint Strike Fighter Alternate Engine**  
**Before the Senate Armed Services Committee**  
**March 15, 2006**

**“Hard Choices”**

Chairman Warner, Senator Levin, Members of the Committee,

Thank you for the opportunity to discuss the Department of Defense’s decision to cancel the Joint Strike Fighter F136 engine, as part of the President’s FY07 budget submission.

With me today are the Vice Chiefs of the Air Force, Navy and Marines. Each of these Services will be operating the JSF. Each of these individuals is a distinguished combat aviator – Gen Corley, ADM Willard, and Gen Magnus. We are prepared to answer any questions you may have.

The F-35 Joint Strike Fighter - our next-generation strike fighter – is an important program. It is designed to be lethal, supportable, survivable and hopefully *affordable*. All three versions were supported by the 2006 Quadrennial Defense Review as necessary to meet the security challenges of the 21<sup>st</sup> century, by being adaptable to different operating environments and threats. Adaptability and flexibility, in the face of greater strategic uncertainty than ever before, are critical parts of the Department’s strategic approach.

The JSF also supports the Department’s strategic vision to bolster international partnerships. Victory in the Long War and against other threats to our Nation requires international unity of purpose, and the ability to integrate our efforts with those of our international partners. JSF gives us a good opportunity to share interoperable capabilities with key partners around the globe.

As part of the QDR process, and based on analysis and in-depth discussion among senior civilian and military leaders, the Department decided to continue to produce all three JSF variants – CTOL, STOVL and CV. We did this to maintain as wide a range of options as possible, and to address the interests of our international partners. In particular, we recognized the interest of our British allies in the STOVL variant and its importance to their future defense program.

The pros and cons of a competitive engine strategy were analyzed. The Department concluded that having a second JSF engine would not yield net cost savings through competition. Development costs of the second engine program are estimated to be, at a minimum, \$2.4 billion dollars through the FYDP. In the most optimistic projection, savings in production would not begin to accrue until 2025. In the most realistic scenario, savings are never achieved, regardless of program time.

It can certainly be argued that a second engine reduces the program's engine failure risk, but the Department has found that to be an acceptable risk.

Here, it is useful to consider the history of the alternate engine debate. In the 1970's, engine reliability was much lower than it is today. As late as December of 1990, the Air Force's B-1 fleet stood down for 3 months due to an engine defect. However, reliability and safety factors have increased 10-fold in last 30 years. Today, for the Air Force's F-16, the single engine mishap rate has dropped from 10 per 100,000 hours to 1 per 100,000 hours. This same reliability increase is found in the civilian airline industry where Southwest Airlines now experiences only 1 engine shutdown per 177,000 flight hours. Put another way, one of their aircraft must fly for 53 years before experiencing one in-flight shutdown.

The "Great Engine War" between Pratt & Whitney and General Electric, in the early 1980's, served its purpose at the time by generating competition, and it was one of the catalysts for the incredible achievements of the engine industry's unprecedented accomplishments. While there were benefits to engine competition in the past, recent experience with engine development for the F-22A and F/A-18 E/F indicates that sole-source risks are modest and acceptable. In over 12 years, the F119 engine found in the F-22A has amassed more than 42,000 hours in ground

and flight-testing, and another 16,000 hours of operational time. With zero F-22A engine-related losses and no groundings due to engine-related problems, the F119 engine marks a significant improvement over legacy fighter engine programs like those that prompted the “Great Engine War.”

The F135 engine will benefit from a 70% commonality with the superb F119 engine. Moreover, the F119 is projected to have accrued 800,000 hours by F135 IOC. The data from that program will be used to improve the F135 in terms of design, repair, and supportability. Indeed, for the F135 propulsion system, a 30 to 50 percent improvement in reliability and safety is predicted, compared to the F119, which is already the most successful jet fighter engine in the Department's history.

The Department has concluded that while it would be nice to have a second engine, it is not necessary and not affordable. As a general matter, applying resources to a specific problem is usually more timely and effective than diverting funding to a redundant solution.

In the 2006 QDR, the Department laid out a future strategic vision to meet the new and broader array of threats to the Nation. This vision calls for a shift of emphasis, and making that shift forces hard decisions in the budgeting process. It requires the Department to carefully consider capabilities versus cost and, if necessary, to terminate or modify less effective and lower priority programs in order to be able to afford the new capabilities required.

The Department began this process in the President's FY '07 budget submission. The Department's senior civilian and military leadership determined, for example, that to defeat terrorist networks, it is necessary to fund the largest increase to Special Operations Forces since Vietnam. Another example is that the Department determined that in order to strengthen homeland defense and hedge against technological surprises, a substantial investment in broad-spectrum medical countermeasures against advanced bio-terror agents is necessary.

Making these investments required some hard choices. The FY '07 President's budget submittal contains some “leading edge” hard choices from the QDR. Most of the hard work, to align the

defense program with the strategic direction of the QDR, will continue into FY '08, FY '09 and forward.

I would also remind the Committee that each contractor team that bid on the JSF selected the current Pratt & Whitney engine design. The alternate engine was directed by the Congress, and the Department has been fully compliant with that direction until it became evident that the cost risk benefit was no longer advantageous. Continuing with that second engine would lead the Department down the classical procurement path of delays, and spreading out the costs over time. Without the ability to adjust procurement to meet defense needs, the Department will be mired in the status quo at a time when it needs to be flexible and dynamic.

Today, I am asking you to join the Department of Defense in making the hard choices we have to make, to implement the strategic vision of the QDR. A few days ago, the Chairman of the Senate Budget Committee, Senator Judd Gregg, summarized our situation quite clearly: “We must also recognize that there is no such thing as an unlimited budget – difficult choices must be made.”

To meet the security challenges of the 21<sup>st</sup> century, maintaining the status quo is not an option. The QDR is a great start, but its vision can only be achieved with the support of the Congress to adjust programs and funding. Writing about the challenges the Founders of our nation faced, David Hackett Fischer said that “the history of a free people is the history of hard choices”. It was true then, and it’s true today.

Thank you again for your interest in our programs, and your unwavering, strong support of our men and women in uniform – they are remarkable. I look forward to your questions.