



THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000

JUN 16 2004

MEMORANDUM FOR THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
TECHNOLOGY & LOGISTICS (ACTING)

SUBJECT: JSF STOVL DESIGN PRIORITIES

The recent Joint Strike Fighter CEO Conference you hosted was highly productive, and I think your leadership is very important to the program. During the preceding Configuration Steering Board (CSB) and my trip to Fort Worth, it was clear that the JSF team is making good progress. However, it is equally true that continued creative work as well as determined discipline will be required to produce the most capable STOVL variant. Indeed, the program needs to operate from a miserly perspective, evaluating fully opportunities to shave the design, to alter assumptions about operating ground rules and assumptions, and to adjust requirements.

These views are consistent with the assessment of the Independent Review Team (IRT). The IRT concluded that an effective STOVL design can be produced, but the IRT felt that the STOVL aircraft needs weight saving alterations as well as adjustments to the operating guidelines and requirements to deliver the maximum capability to the warfighter.

The JSF program office, the JSF industry team, and the JSF requirements sponsors must work more urgently and aggressively to enable to JSF STOVL design to progress in a timely manner. The JSF CSB must assume a stronger role, tabling the design change issues for discussion and prohibiting the expenditure of taxpayer funds for any items that could be reasonably adjusted to reduce cost and weight while delivering significant capability. With these thoughts in mind, I would recommend the following actions:

- The JSF team should proceed to endorse the STOVL recommendations listed in this memo, subject to further analysis. However, only compelling warfighting concerns should lead to rejection of any of these design, operating ground rule, and requirements adjustments.
- The CSB should meet again in August and at least bimonthly thereafter to review the status of STOVL trades and to give urgent consideration to new proposals that enhance STOVL viability.

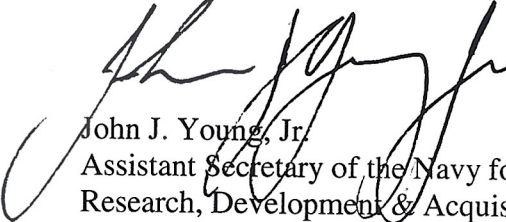
During both the CEO and CSB sessions, several JSF design and operating alterations were proposed. As briefed at these meetings, the current estimate of the STOVL design weight is 33,238 pounds. In order to meet the Key Performance Parameter (KPP) requirements, the STOVL design must achieve an effective operating weight of 29,612 pounds, allowing for growth to IOC. This gap of almost 3600 pounds clearly demands urgent and determined efforts to reduce STOVL weight and make all viable compromises in the operating ground rules and requirements.

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The program office and industry should continue to identify and embrace changes which help STOVL meet its STO and VLBB KPP's. Since STO and VLBB are indeed KPP's, the team should be allowed to compromise all other specifications when the design choice enhances KPP performance at the expense of performance against a specification.

The disposition of the JSF Program Office and the industry team should be to endorse all of the above design and operating compromises unless a compelling safety issue prevents adoption of the recommended change. The JSF family, including STOVL, will be significantly more capable than the legacy aircraft to be replaced. These and other modest adjustments still deliver dramatically greater capability to the warfighter and enable concepts of operation that are not possible with current aircraft.

The CSB was chartered to constrain cost growth and requirements creep on JSF. Given the challenges facing STOVL, the CSB should now more actively and aggressively make decisions driven almost exclusively by the need to develop a STOVL design that can be operated effectively. I look forward to your support of this approach in order to ensure the success of the JSF program.



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