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Sent: Friday, 9 April 2010 12:12 PM
To: cd.moore@jsf.mil
Cc: 'Dr Carlo Kopp'; 'Johan Boeder - BEVER Automatisering B.V.'; Arch.Bevis.MP@aph.gov.au; 'APA_Peer_Review_Group'
Subject: F-35 SAR 31Dec09 Document: Request for Clarification No 002
Attachments: F-35 SAR 31Dec09 Document: Request for Clarification No 001 (23.8 KB)

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Dear Major General C.D. Moore,

Subject: **F-35 SAR 31Dec09 Document: Request for Clarification No 002**

Further to the attached, the next area on which clarification from the JSF PEO is sought and would be appreciated is on Page 53 of the subject SAR document.

Since 2001, the four pillars of the JSF Program have been that the JSF capability is deemed to be 'Affordable', 'Survivable', 'Lethal' and 'Supportable'.

These themes and the underlying presentations and representations were used to great effect in selling the JSF Program to the American people and, through their respective Departments and Ministries of Defence and Governments, to the people of the JSF partner countries who, subsequently, relied upon such representations as being in the best interests of their Nations.

Continuing reliance on such representations is very much evident today, as seen in the statement on Page 4 of the subject SAR document –

“The cornerstone of the JSF Program is affordability - reducing the development cost, production cost, and cost of ownership of the JSF family of aircraft. The program was structured from the beginning to be a model of acquisition reform, with an emphasis on jointness, technology maturation and concept demonstrations, and early cost and performance trades integral to the weapon system requirements definition process.”

Underpinning the first and fourth themes; namely, 'Affordable' and 'Supportable', have been claims that the JSF was (rather than “would be” or “will be”) much cheaper to operate and support and, thus, has far lower “Total Life Cycle Costs” (TLCC) than the aircraft it is intended to replace. The F-16C has and continues to be the fighter aircraft system used for comparison to show how much cheaper the JSF will be to operate and maintain.

However, the subject SAR document does not align with this paradigm of lower TLCC, let alone lower Operating and Support (O&S) costs, as can be seen in the following:

Operating and Support (O&S) Costs – Page 53

The 31 Dec 09 SAR reports the projected O&S Costs of the F-35A JSF at US\$15,190 per flying hour, in BY2002 dollars, and the O&S Costs for the F-16C/D, based on actual costs, as US\$13,191 per flying hour, again in BY2002 dollars.

Therefore, according to these figures, the F-35A JSF is expected to cost **over 15%** more to operate and support than the F-16C/D, in BY2002 dollars.

The reasons for this are attributed to a considerably higher cost in Unit Level Consumption by the JSF; almost three times the costs for Contractor Support; and, over three times the cost for Sustaining Support. The comparison in the SAR document uses the higher Mission Pay & Allowance costs for the two place F-16D in its basis. Using such a comparison has the effect of skewing the data in favour of a more competitive comparative position for the JSF than would be the case. Correcting the data to remove this skew results in the F-35A JSF costing **over 20%** more to operate and support than the antecedent single seat F-16C, again in BY2002 dollars.

The SAR also cites a number of caveats and qualifications to these projected O&S costs and these may be summarised as follows:

- F-35 CTOL costs reflect 24-aircraft squadrons operating at 300 flying hours per aircraft per year.
- The F-16 O&S costing data does not include/report certain cost elements applicable to the F-35A JSF system. These include Support Equipment Replacement, Modifications and Indirect Cost as well as the cost of supporting training centres, training devices at operational sites and Autonomic Logistics Information System (ALIS). Such cost categories do not apply to legacy programs such as the F-16C/D.
- The contributions from these cost categories have been excluded from the F-35A JSF costs to provide a better 'apples to apples' comparison with the antecedent F-16C/D program. Thus, there would be a fairly high probability that the F-35A JSF O&S costs would be **greater than 1.15 x F-16C/D O&S costs**.

All of this leads to the following questions that seek clarification of what appears to be a major disconnect between the representations made in the promotion and marketing of the JSF Program and the realities of what is stated in the subject SAR document.

1. Have the statements made on Page 53 of the subject SAR document been similarly stated in previous F-35 SAR documents and, if so, since what time and on how many occasions?
2. If so, then how does the PEO and the OSD reconcile such statements in the SARs with those on which the American people and people throughout the western world have relied?
3. Naturally, we would expect the re-certification process resulting from the Nunn-McCurdy Breach would re-evaluate such claims as those made about JSF operations and support, including but limited to the costs. Is this the case and will such re-evaluations and the results of same be transparent and as widely disseminated/disclosed to those who relied up the original representations?
4. Independent analyses and modelling (as outlined in the attached) has yielded F-35A JSF O&S costs as 'Almost Certain' to range between **1.3 to 1.7 times** those for the F-16C/D baseline, on both an individual aircraft and comparable fleet size basis, and, again, in BY 2002 dollars. The comparable fleet size ratio was nominally defined as 1.5; namely 1 x F-35A JSF for every 1.5 x F-16C/D which, as you will appreciate, does bias the overall fleet O&S costs and resulting "*figure of comparison*" in favour of the F-35A JSF. These results do not include costs for the "*incremental blocks of increasing capability*" through upgrades and modifications nor any costs for rectification/correction/re-design/further development arising from DT&E/OT&E and initial in-service experience.

How do the results of these analyses and modelling compare with those of the complete Independent Cost Estimate now in process as a requirement of the Nunn-McCurdy Breach?

Finally, please excuse the directness or, as some might say, bluntness of these inquiries. Collectively, we do not have the time to be highly refined or pleasant and, moreover, these matters are neither highly refined nor very pleasant.

Very much looking forward to hearing from you at the earliest.

Best Regards,

Peter Goon

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