



OFFICE OF THE UNDER SECRETARY OF DEFENSE

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ACQUISITION,  
TECHNOLOGY  
AND LOGISTICS

INFO MEMO

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FOR: UNDER SECRETARY OF DEFENSE (AT&L)

FROM: GARY R. BLISS, DIRECTOR, PERFORMANCE ASSESSMENTS AND ROOT CAUSE ANALYSES *SAB 3 Rg W10*

SUBJECT: PARCA Root Cause Analysis for the Excalibur Program

- This memorandum summarizes PARCA's root cause analysis of the Excalibur Program's cost growth which triggered the Nunn-McCurdy breach reported to Congress in August, 2010. As shown in the table, there are critical breaches in both Average Unit Procurement Unit cost (APUC) and Program Acquisition Unit Cost (PAUC) against both the original (2004) and the current (2007) baselines. The Army attributed these breaches to the reduction in quantity from 30,000 rounds to 6,246 rounds reported in a May 12, 2010 Acquisition Decision Memorandum.

APB	Cost Growth	
	PAUC	APUC
Original	211%	159%
Current	199%	130%

- The proximate cause for the Nunn-McCurdy breach is the change in quantity. Prior to the quantity change, program costs increased due to difficulties with the Inertial Measurement Unit, meeting an Urgent Operational Need, and several cost estimating methodology adjustments. In total, however, these factors increased the APUC and PAUC by 21% and 4% respectively compared to the original baseline. Since there have been no other significant increases in cost, there would not have been a Nunn-McCurdy breach without the fivefold reduction in quantity. The primary impact of the quantity change on the unit cost is to reduce the proportion of the cheaper Increment 1b munitions purchased in the total program. Secondly, the quantity reduction magnified the impact of the doubling of unit cost for the 1,000 munitions bought in FY11 due to parts obsolescence, additional funding for potential termination of the program, and no FY10 purchase.
- The root cause of the Nunn-McCurdy breach is the Army's reassessment of a cost-effective mix of munitions to achieve precision fires. The Under Secretary of the Army directed the decrease in Excalibur quantity based upon a Munitions Mix study which concluded that the Army should buy a minimal, business case quantity of Excalibur munitions stating that the Precision Guidance Kit would mitigate the risk of doing so. The exact quantity of Excalibur munitions was based upon a classified scenario in the Quantitative War Reserve Requirements Munitions Model.

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- The government and contactor appear to have executed well to this point. However, some uncertainty remains with the 18 month development effort. This effort will fix shortcomings identified in the recent “shoot off”, improve producibility, and complete qualification testing. PARCA will reassess this uncertainty as part of its statutory semi-annual reviews of the program.

COORDINATION: NONE

cc: PDUSD AT&L

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