Errata

To: Recipients of MG-690-AF, *Improving the Cost Estimation of Space Systems*

From: RAND Corporation Publications Department

Date: January 2009

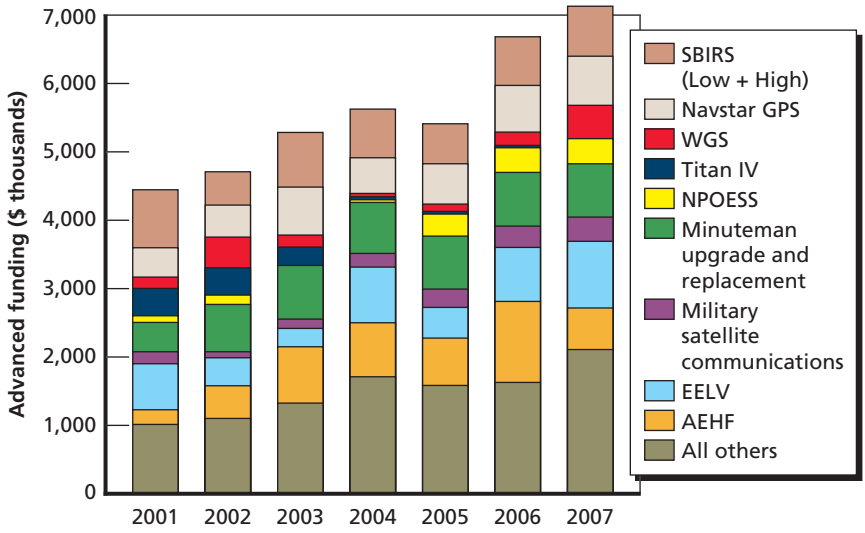
Re: Corrected Figure 1.1 on page 3, and corrected Figure 2.3 on page 34

In Figure 1.1 on page 3 of the originally published document, the original color breaks and key tags were misassigned.

In Figure 2.3 on page 34 of the originally published document, the tags "Procurement" and "Development" were inadvertently transposed and distinguishing colors assigned incorrectly. The data lines for "quantity adjusted" and "not quantity adjusted" numbers for years 1995–1999 in the table just below the figure were also inadvertently transposed.

The corrected Figure 1.1 and Figure 2.3 appear on the reverse of this leaf.

Figure 1.1
Total Air Force Space Acquisition Annual Budgets in TY$, 2001–2007, and Size of Largest Programs



NOTES: SBIRS = Space-Based Infrared System; WGS = Wideband Gapfiller Satellites; NPOESS = National Polar-Orbiting Operating Environment Satellite System; AEHF = Advanced Extremely High Frequency System; EELV = Evolved Expendable Launch Vehicle.

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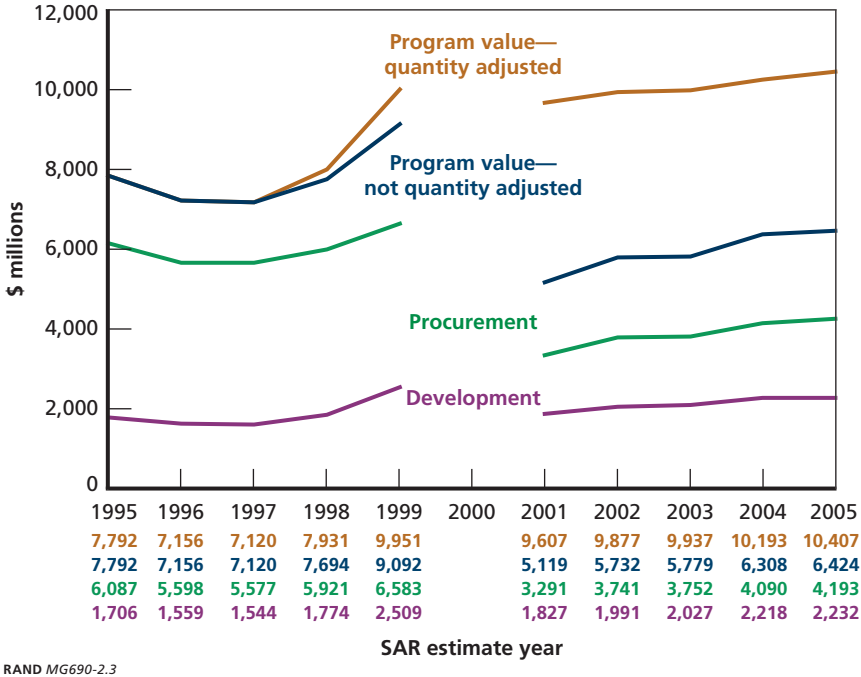
at SMC from 2001 through 2007, compared with each other and with the annual budget value of all other acquisition programs at SMC. There was a steady increase between 2001 and 2007, with the exception of a slight decline in 2005. The figure also shows that the nine largest programs made up well over two-thirds of the total SMC space system acquisition budgets during this period.

In response to this high cost growth in the acquisition of space systems, the Under Secretary of the Air Force, in accordance with National Security Space (NSS) Acquisition Policy[3] directed the Air Force to support the development of independent, accurate, and timely cost analyses to make the acquisition of NSS sys-

[3] National Security Space Acquisition Policy (NSSAP), Number 03-01, December 20, 2004.

Figure 2.3
A Ten-Year Look at SAR Cost Estimates for GPS Development and Procurement



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total planned satellites from the program. Adjusted for satellite quantity change (orange line), the program's total value increased by $2.6 billion, or about 34 percent, from 1996 through 2005.[19] The value of program expenditures for development increased by about a third over the ten years, while that for procurement decreased by about a third.

Over the ten-year time frame, GPS program SARs reported some 169 cost variances. The total included 67 in development and 102 in procurement. The acquisition program does not include funding from

[19] The quantity adjustment was made using the average unit procurement cost for those units remaining in the program in each year's estimate for the entire production run. The per-satellite adjustment value is unique to each annual estimate, steadily increasing from about $95 million in 1999 to about $105 million in 2005.