

Are program changes resulting from the fact that they go into production too early, or is it a fact of life that we have to face with any new weapon because you're on the cutting edge of technology? Should there be built into each program some cost increases? The costs of these programs are actually almost doubling. That is not quite accurate, but there is an increase of 80 percent on average of each program.

The initial real dollar cost was a 100, the additional real dollar cost because of program changes is 81.

Is that fairly low or high?

Mr. KUHN. This is probably either average or low. If you go through the table that I developed for 28 weapons systems in production as of June last year—and I think that all of those systems are still in production—this Hellfire program is no worse than most of the others and, in fact, it is better than many of them.

Chairman ROY. Let me ask you this, then:

Can that be avoided, or should they be doubling their initial estimate of cost because of experience?

Mr. KUHN. I don't think it can be avoided altogether. I think, again, the previous witness from GAO alluded to this. We have enormous optimism built into the cost estimates that the Defense Department sends over to the Congress. They assume that the program, as they lay it out and as they cost it out, is not going to change.

I have been told that DOD often allows about 3 to 7 percent of their total projected program cost for uncertainty, that is, for unscheduled or unplanned program changes.

Well, this one chart suggests that that 3 to 7 percent is absolutely overwhelmed by the realities of program changes. Some of these changes are unavoidable—for example, technical difficulties they didn't project, or labor difficulties they didn't project, or inflation, or whatever.

But other significant programs changes are quite conscious. They increase or decrease the quantity. That is a conscious decision. They change the design of the program or they try to add more capabilities.

The point that I would make is that if you look at every single system in the SAR, they all are subject to these enormous program cost increases due to program changes.

Those program changes, by definition, cannot be predicted precisely. But I think it is quite reasonable for the Congress to expect that when DOD comes over here and testifies on the cost of a new proposed program, that it inform Congress—and one of your colleagues was getting to this earlier this morning—that its cost projection assumes no changes. DOD should say, "We believe that the program is going to cost  $x$  and that is our best guess, but that assumes no changes. However, based on the experience of other programs of a similar technical character, they ended up in fact costing an average of so-and-so percent more than originally projected, due to program changes." Congress ought to be told that so it can check whether DOD has too many optimistically costed programs plugged into its projected procurement budget.