Written by Nick Sanders Tuesday, 31 May 2016 00:00

We've written before about the tortuous road to award the next generation USAF aerial tanker contract. It was the kind of story we like to document: by turns quirky and humorous and at one point even perhaps criminal. It had Russians competing to supply the US Air Force and you know that story's got to be funny right there. It had Congressional hearings and bid protests and it was just a story that seemed to write itself. A link to one of our early articles on the topic – from 2009 – can be found <u>here</u>.

The USAF has been trying to replace its force of KC-135 tankers since before 2003 and, while it (finally!) awarded the contract in February, 2011—quite literally more than five years ago—as of this date not a single KC-46A has been delivered. But that was in accordance with the contract's schedule, which called for deliveries to start in 2017 not 2016. Thus, Boeing had six years to design, develop, test, and deliver its aerial tanker.

Six years is either a very long time or a very short time, depending on how advanced the technology is supposed to be. We don't have any great insight here, but we think it's a generous amount of time. We think that because we know that Toyota developed the Prius automobile—which used the world's first hybrid internal combustion engine—in less time than that. According to our research, it took Toyota 24 months to develop a working prototype and another 24 months to put the car into production. So Toyota went from a sheet of blank paper to a car available for purchase in four years. Certainly Boeing, which had a strong design in its proposal and used its own commercial aircraft as the basis for the tanker, could get its first plane into flight within six years, right?

Not so fast.

Boeing's Fixed-Price-Incentive-Fee program has had troubles and not only has Boeing burned through all of its possible incentive fee covering cost overruns, the company has had to take accounting charges to cover unplanned cost growth. To date, Boeing has written-off more than \$1.5 Billion against the program, which we suspect does not thrill its shareholders. (Disclosure: I own some Boeing stock and I wish the stock price would get back to where it used to be.) Boeing took write-offs in 2014, 2015, and in 2016. It's almost become an annual ritual for Boeing to announce write-offs on its KC-46A program.

But despite cost overruns, Boeing has always maintained that it was on schedule for initial

Status of Boeing's Fixed-Price Aerial Tanker Development Contract

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delivery of 18 tankers.

Until now.

Boeing recently **announced** a schedule slip in the program, a six-month delay in the delivery of the first plane. In addition, the USAF will not receive its 18th tanker until January 2018. But those first 18 planes will not have full refueling capability (via wing pods) until October 2018. As the article written by Dominic Gates in the Seattle Times headlines: "Boeing tankers will be delivered to the Air Force late—and incomplete."

The Seattle Times article (link above) also reported that "In addition to the delay in initial deliveries, the Air Force said it will also push out its formal go-ahead to Boeing to build production tankers, from June to August. That's to give Boeing more time to develop a software fix for the refueling-boom stress problem."

Old-timers who lived through the defense environment of the late 1980's and knew about the A-12 program (and others) that were Fixed-Price development contracts might have predicted this outcome. Really old-timers might remember Lockheed's C-5A overruns and technical problems that contributed to the need for a government "bail-out" of the corporation in 1971.

Fixed-Price development is a bad idea. We all know this. But we keep forgetting it.

A fixed-price contract assumes that both parties know the risks and the actual scope of work. Development—going from nothing to something—is fraught with risks and unknowns. Thus, the KC-46A development contract joins the pantheon of government programs whose contract type was a Bad Idea.

So here we are again, writing about Boeing and its development of an aerial tanker under a FPIF arrangement. Cost overruns, schedule slips, technical problems. It's really just another chapter in a long story that might stretch a long time. We don't know whether this is the last chapter, or if Boeing will be announcing additional problems in the future, as it analyzes the cost impact of the program's new schedule slip.

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What we do know is that the US Air Force doesn't have its new aerial tankers.