

The Pentagon Doesn't Want Innovation and Here's the Proof

Written by Nick Sanders

Wednesday, 15 April 2015 00:00



Many years ago [Dr. Robert Carman](#) told me about a project he headed at an aerospace/defense contractor in the San Fernando Valley suburb of Los Angeles, wherein he and his team were challenged to design a “concept prototype” engine that might one day replace the Space Shuttle’s main engine. The engine they designed consisted of six parts instead of 1,200. In addition it had a predicted first unit cost of \$47,000 (versus \$4.5 million) and a predicted engine manufacturing cost of \$500,000 instead of \$7 million. Similar improvements were predicted for cycle time, thrust, and quality.

It was never built.

According to Dr. Carman, the potential benefits associated with the concept prototype engine were seen as a problem. It was too simple; there were not enough purchased parts; and it didn’t take enough labor to manufacture. If the concept prototype engine were adopted it would put too many people out of work. That was not an acceptable outcome to the individuals with the funding and decision-making authority.

From that experience (and from other similar experiences, we presume) Dr. Carman developed the rule that when people say they want improvement, what they really want is incremental improvement. They want a 10% improvement, not a 90% improvement. They don’t want radical change. They don’t want quantum leaps in affordability. Those changes are disruptive to the status quo.

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Leaders want evolution, not revolution. Especially within the traditional monopsony that is the defense marketplace.

When leaders say they want innovation, what they want is spiral development and predictable forward progress. They don't want disruptive innovation that upsets the status quo and puts jobs at risk.

The Government Accountability Office (GAO) enables this mindset by [insisting](#) on design maturity and Technology Readiness Level (TRL) in order to reduce program cost and schedule risk. The Pentagon enables this mindset by creating Program Executive Officers (PEOs) and their teams, who fight for funding and resist efforts to stop work on their programs when something new and better comes along. The same thing could be said for the military services in general, who fight for program funding even when the need and program requirements indicate that there's a better solution. Congress enables this mindset by focusing on where the funding is being spent (

i.e.

, in whose state and in whose district?) and by insisting that any cost growth and/or schedule delays are a special kind of sin warranting hearings and finger-pointing.

Nobody wants disruptive innovation. Disruptive innovation thwarts competition, because by definition the best solution is that developed by the single bidder who is the innovator. Nobody else can compete. Who in the acquisition community will speak out in favor of less competition? Further, the results of truly disruptive innovation—the kind of change that's a quantum leap from the status quo—results in immediate obsolescence for weapon systems, for inventory and for depot repairs. It upsets everybody's apple cart.

Disruptive innovation is the result of a vision plus hard development work, and the Pentagon doesn't fund that type of effort much anymore. Disruptive innovation gets in the way of carefully managed, centrally planned, incremental improvements. Nobody wants to sponsor a wild hair idea that may, or may not, end up working out. While innovators seek to "fail faster" the current Pentagon mantra is "failure is not an option."

Thus, disruptive innovation has no patrons and has to fight a difficult battle against the forces that defend the status quo.

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The latest piece of evidence in support of our assertion can be found [here](#). It is an article that discusses how U.S. Army special operations units are being forced to use the Distributed Common Ground System (DCGS) – which is “an in-house system built and maintained by traditional defense contractors.” According to the article, “The Distributed Common Ground System, or DCGS, has consistently failed independent tests and earned the ire of soldiers in the field for its poor performance.” Instead of DCGS, the troops want to use the software developed by Palantir, which is a “commercial alternative” that has received great marks by those who’ve used it.

According to the article—

Intelligence officers say they use Palantir to analyze and map a variety of intelligence from hundreds of databases. Palantir costs millions, compared to the billions the military has been pouring into DCGS.

Special operations officials, in a statement to AP, said Palantir had been ‘extremely successful’ in Iraq and Afghanistan and they are working to expand access to Palantir for units deployed in the fight against the Islamic State group. But records and interviews show a history of internal pressure against making and approving such requests.

One veteran special operations intel analyst, who is on his seventh deployment in 12 years, said his recent request for Palantir for a unit heading to Iraq had met with ‘pushback’ both from his own headquarters and from bureaucrats who favor DCGS's analytical component at the Pentagon, special operations command headquarters in Tampa, and Army special operations in Fort Bragg. Another special operations officer also used the term ‘heavy pushback’ in an email about his request for Palantir.

Another [article](#) explored the controversy from another angle. It contains a quote from Congressman Duncan Hunter, who said, “You literally have these old tired (bureaucrats) stopping the warfighter from getting what they know works.” As the article notes, the Army is attempting to address its soldiers’ concerns by forming “teams of experts to help with DCGS-A training” and by releasing “an RFI for Increment 2, which will boost the system’s ease of use...” A very traditional response by a very traditional defense program, one sold by traditional defense contractors and managed by the traditional military program structure.

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Meanwhile, the low-cost innovator, Palantir, continues to outperform its traditional rival. And the troops know it.

So here's a concrete example of innovative technology that works better and costs less than the traditional product that was designed, developed, and delivered by the traditional defense establishment. The only problem is that it's disruptive and upsets the status quo. The Pentagon has gotten the innovative technology it said it wanted; but it won't use it, even if that means soldiers' lives may be at risk.

And you wonder why we are skeptical about the success of Better Buying Power 3.0.