

If it weren't so troubling it would be hilarious.

Remember when [we wrote](#) about the importance of supply chain risk management? Remember when we asserted that programs generally under manage risks in their supply chains? Yeah, we do too. We also remember that lady at the Top 5 defense contractor who pooh-poohed our attempts at risk identification by telling us that her suppliers would *never* do terrible things such as engage in product substitution or falsely certify test results. Oh, no. Her company would *never* do business with that kind of supplier, no way.

Anyway, those thoughts came to mind once again when [we read](#) that Pratt & Whitney had briefly suspended deliveries of engines for the F-35 Lightning II Joint Strike Fighter because of concerns over the pedigree of the titanium used in the engines. The article reported that Pratt & Whitney was no longer accepting parts made by its supplier, A&P Alloys. (A&P Alloys denied the allegations.)

The article noted that Pratt & Whitney has faced continued challenges in managing its suppliers, writing—

The Defense Contract Management Agency wrote in a June internal assessment that Pratt & Whitney's 'continued poor management of suppliers is a primary driver for the increased potential problem notifications.' The incidents 'have resulted in delinquent deliveries of engines,' the agency said. 'This trend will continue until the contractor improves its management of subcontractors and suppliers.'

Bates, the Pratt & Whitney spokesman, said 'the vast majority' of problem notifications 'are minor issues or no issues at all' and 'do not have any impact on specifications or field performance' of engines. Only four of the 30 notifications 'required action in the field,' he said. The Pentagon's F-35 program office said in a statement that Pratt & Whitney's 'persistent problems stem from the supply chain' because 80 percent of the engine is produced by many different subcontractors. ...

Pratt & Whitney isn't asking the Pentagon to pay the cost associated with removal and replacement of 'parts with the suspect titanium,' Bates said.

One reason behind Pratt & Whitney's decision not to pass on the cost of replacing the titanium engine parts may be because they were planning to recover the increased (and possibly unallowable) costs from the supplier, A&P Alloys. A subsequent [news article](#) reported that a lawsuit had been filed, accusing A&P Alloys of "fraud and breach of contract," stemming from "intentionally submitted certifications falsely representing the pedigree and quality of its material."

The article reported—

Pratt is suing for damages and attorneys fees arising from fraudulent misrepresentations about the metals and attempts to impede Pratt's efforts to uncover the alleged misconduct, according to the lawsuit.

According to the lawsuit, A&P's owner denied representatives from Pratt and Lewis access to A&P's headquarters when they were seeking documents and refused to turn over requested records.

Pratt put its costs at more than \$1 million thus far, the lawsuit said.

Based on the article (link above), we can tell that A&P Alloys was a lower-tier subcontractor. It was actually a supplier to Lewis Machine LLC, who was a subcontractor to Pratt & Whitney. Should the fact that it was a supplier of a supplier excuse Pratt & Whitney of responsibility for managing that supplier? In truth, was it not the responsibility of Lewis Machine LLC to properly manage its suppliers?

Well, we guess one could make that argument in court.

But the fact of the matter – the crux of the situation – is that Pratt & Whitney was responsible for delivering F-35 engines to the customer. *Period.* It was responsible for program execution, regardless of whether it performed all the work in-house or outsourced everything to multiple supply chain tiers and had thousands of suppliers performing the work. Pratt & Whitney was responsible, which is why it is their name in the headlines and not Lewis Machine LLC or A&P Alloys.

As previously noted, Pratt & Whitney has been on notice for some time that it has had supply chain management problems. More specifically, according to [another article](#), Pratt & Whitney has been on notice for some time that specialty metals in the program supply chain (specifically including titanium) have been at risk. The article reported –

The court documents claim that A&P Alloys lied numerous times about the origins of the metal and, in some cases, told intermediate suppliers to withhold information from Pratt & Whitney.

Pressure built at Pratt & Whitney and appeared to spill out publicly days after the visit, when the company's head of engineering and operations, Danny Di Perna, spoke to businesses at an industry event, visibly upset about some supplier issue. 'There are some folks out here ... that do bad things with material,' Di Perna said on May 30, not specifically citing the titanium problem but explaining that he had been dealing with an issue since 7:30 the night before. 'I'm very upset about it. ... But I'm telling you, integrity.' Although he cited no specifics of the issue, he constantly returned to supplier honesty and quality. 'The supply chain I don't think is ready' for higher production, he said. 'We are not going to put up with nonperformance anymore.'

The federal court case offers a unique glimpse into how Pratt & Whitney maintains quality and compliance among its field of suppliers for hundreds of thousands of parts. *With steep production increases on the horizon, the incident shows just how much the company relies on the honesty of its suppliers and redundant testing measures to keep the operation on track.*

...

*Last year, separate issues regarding its titanium supply resulted in Pratt & Whitney's reviewing parts in many of its engines.* In that case, as in this one, the company said that the parts were found to be out of conformance with standards but safe enough to not pose a flight safety risk.

(Emphasis added.)

This situation would be hilarious if it were not so troubling.

Here we have the single most expensive fighter program in the history of the United States, and (according to news reports) the single most important program for engine-maker Pratt & Whitney. Here we have continued supply chain management problems—literally a recurrence of the *same specialty metal pedigree problems*. Here we have at least a million dollars wasted and millions more dollars of legal fees yet to be spent, and headlines impugning the Pratt & Whitney brand and more headlines yet to come. This is not how one would wish the Pratt & Whitney executives to be spending their time.

And what is the root cause?

Ineffective supply chain risk management.

Oh, you can gussy it up and point fingers and cry “fraud” – and no doubt that is being done and will continue to be the Pratt & Whitney party line. But the root cause, in our view from 1,500 miles away, is that *Pratt & Whitney failed to engage in adequate program risk identification and failed to effectively manage its supply chain risks*.

But maybe those folks in charge of program supply chain management assumed that their suppliers would never, *ever*, do anything wrong. They trusted the honesty, the integrity, of their suppliers. Would you say that was simply naiveté in action – or perhaps more than a bit negligent?

Bottom-line: It's tough to manage program risks when you put on blinders and refuse even to consider them.

## Subcontractor Risk Management, Redux

Written by Nick Sanders

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Now let's try a little experiment.

You tell us you don't have budget to spend on sending quality assurance inspectors down two and three (or maybe even four and five) tiers deep into the program supply chain. You tell us you have neither the resources nor the funding to deploy enough people to enough suppliers to ensure that everything in on the up-and-up. You tell us that you can't inspect quality into a program supply chain, that quality has to be embedded at the cultural level. And you have no money to spend on some kind of IT-based product pedigree system.

Okay, we say. That's your call. We agree that a quality-focused culture is more effective than an inspection-focused culture. But that assumes your supply chain is mature enough to create that culture. In the meantime, you have to decide how to manage the supply chain you have, not the one you wish to have. But we get that it is your decision to decide how to deploy the scarce resources you have. If you decide to limit supplier inspections (or not to implement a secure program supply chain product pedigree system) because of budgetary concerns, that's clearly your call to make.

But consider this:

Because of your decision, the company will suffer adverse publicity, have an interruption in planned deliveries (which will impact sales) and you will incur at least one million dollars in additional costs plus untold millions in legal fees (most, if not all, of which will be unallowable—which will impact your profit). In addition, you will spend an inordinate number of labor hours trying to solve the problem and develop a work-around, which will divert your scarce resources to solving a problem that might well have been prevented in the first place. Plus you will also upset the customer of the company's single biggest program, the customer who will (at a minimum) submit a performance review into a government-wide database for use on future source selection decisions.

Because of your decision not to proactively identify and manage your program supply chain risks, you will put your single biggest revenue stream at risk.

How much would you be willing to spend on supplier risk management *now*?

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