

Air Force One, Maybe

Written by Nick Sanders
Tuesday, 15 June 2021 07:42

The VC-25A aircraft, commonly known as “Air Force One,” needs to be replaced. This has been known for several years. The existing Boeing 747 aircraft—highly customized to meet Presidential needs—have been operating for more than 20 years (one report says nearly 30 years). The replacement aircraft, dubbed the VC-25B, has been in the works since contract award (to Boeing) in 2015.

It has not been a smooth ride.

President Trump tweeted his opposition to the Air Force One replacement program before he was sworn into office, complaining about excessive cost (“more than \$4 billion”). In an effort to placate the Commander-in-Chief, the US Air Force bought a couple of used aircraft originally intended for a Russian airline, but that didn’t really work out in terms of cost control. At the moment, the replacement program is [expected](#) to cost \$5.3 billion, even though Boeing’s contract is firm, fixed-price and valued at \$3.9 billion (reportedly). One report says the tech manual used for maintenance and repairs costs \$84 million all by itself. We didn’t confirm, but at least one report asserted that Boeing has taken a \$486 million charge against earnings to cover its program overrun. *Ouch.*

But Boeing’s program is in even more trouble than simple budget pressures. It is also late.

If you were looking for “on-time, on-budget,” this is not your program.

As the Financial Times [reported](#) —

The programme represents a sliver of Boeing’s top-line, which totalled \$58bn in 2020. Yet it concerns some analysts because it is another black eye in a string of problems ranging from minor to catastrophic: debris left in the USAF’s KC-46 refuelling tankers, the Starliner crew capsule that failed to reach the International Space Station, the halted 787 deliveries and the two crashes of the 737 Max that killed a combined 346 people.

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The Air Force One problems contribute ‘to an overall impression of Boeing having serious programme management and execution deficiencies, both in their commercial and military businesses’, said Teal analyst Richard Aboulafia.

‘It’s one on top of another, on top of another,’ added Bank of America analyst Ron Epstein. ‘That’s the issue, not Air Force One per se. It’s yet another fumble . . . It really makes you question what’s going on in their engineering organisation.’

Why is the program now estimated to be a full year behind original schedule?

According to reports, Boeing has offered two excuses for the program delay. The first is COVID-19. Apparently, the pandemic impacted Boeing’s ability to work on the aircraft. We expect that’s going to be a common excuse used by many contractors for schedule delays. Indeed, epidemics are one of the expressly listed causes for “excusable delays” found in the FAR. Reports state that Boeing has filed a Request for Equitable Adjustment (REA) with respect to its COVID-19 impacts. We’ll have to see what happens with that REA request.

The other rationale offered by Boeing is more interesting. Boeing is blaming a supplier, GDC Technics, for at least a part of the delay. According to various reports, GDC Technics was the supplier that was responsible for the aircraft’s interior. Obviously, the interior is a fairly critical aspect of a Presidential aircraft.

News reports indicate that Boeing terminated its subcontract and filed suit against GDC Technics in April, 2021. In its suit, Boeing alleged that the company had fallen more than a year behind schedule on designing the VC-25B interiors. GDC then countersued Boeing, claiming that Boeing had mismanaged the program.

Somewhere in the middle of the lawyer-led “He Said, She Said” battle, GDC Technics filed for bankruptcy, citing Boeing’s withholding of \$20 million in payments the company said it was owed for completed work.

Regardless of the merits of the parties’ litigation allegations, this is but the latest example of the

importance of diligent supply chain management. Responsible prime contractors don't let their suppliers fall a year behind; they deploy leading risk indicators and take effective action when the risk indicators start flashing yellow. We're going to assert (without knowing) that Boeing didn't do that in this case.

This blog has emphasized the importance of effective supply chain management over and over. We've written so many articles on the subject we felt the readership had tired of our rants. Apparently, the folks at Boeing aren't readers of the blog.

They could have read [this 2010 article](#) , in which we pontificated that—

Your preoccupation with internal matters, your management metrics that focus only on internal issues (such as headcount), your application of Lean and Six Sigma solely to your own production line, your attempts to control cost growth by forcing suppliers into firm fixed-price development contracts or into making huge program 'investments'—these actions betray a management naïveté, an erroneous impression that the management approach that worked to put a man on the Moon is the same approach that will lead to successful program execution in the 21st century.

Newsflash: *it will not.* ...

Program quality and execution risk *cannot* be transferred to suppliers. The prime contractor is responsible to the customer for the program. *Period.*
If your attorney counsels otherwise, you should hire another attorney. If your subcontract manager or buyer or procurement specialist tells you that cost or schedule or quality or performance risk has been controlled by pushing it downwards in the supply chain, you should put a better support team in place.

Because you cannot build a wall between team members on a program; you cannot say, "This is your responsibility and this is my responsibility." You cannot transfer risk; the most you can do is to share it. The more that design information and risk information is shared, and communicated, and managed as a team, the better the outcome. When you treat your suppliers as individual entities that succeed, or fail, on their own, then you will always suboptimize your outcome. That is axiomatic. It is a nearly inviolate law of 21st century program management.

Or they could have read [this 2014 article](#) , in which we opined that—

One of the truisms we have learned about creating an effective program management culture is that effective subcontractor management may be the most important single factor driving program outcomes. The success or failure of your program very likely hinges on how well you are managing performance that you have pushed outside your factory to external suppliers. We have observed this axiom over and over, whether discussing the Boeing 787 program or the Airbus A380 program or major defense acquisition programs. We have also observed that program execution risks found in the supply chain are, as a rule, under-managed.

Or they could have read [this 2015 article](#) , which focused on counterfeit electronic parts, in which we asserted that—

Many of the largest prime contractors have made a specialty of subcontracting out large portions of the SOW, to the point where they like to call themselves ‘system integrators’ and point to subcontract management as one of their (few) core competencies. Their program win strategy is to lock-up and deliver large teams of individual corporations (along with those corporations’ local Congresspersons and Senators). And it tends to work for them often enough that they keep on doing it. Either they have figured out how to manage the risks associated with supply chain management or, perhaps, they haven’t noticed that those risks keep increasing ... and so they keep on with what has been working for them.

But make no mistake, those risks *do* keep increasing.

Point is, we’ve got a fairly strong pedigree in the area of effective subcontractor management (including supply chain risk management). We’ve got more than thought leadership on the topic—we’ve got hands-on experience in helping large program management teams at very large contractors get a handle on how to manage their supply chain risk. That thing that people now call SCRM (Supply Chain Risk Management)? We were practicing it more than a decade ago.

Based on what we guess about Boeing’s Air Force One replacement program, the program

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team didn't read our articles and didn't implement effective supply chain management techniques.

Thus, when a British Bank of America analyst states "It really makes you question what's going on in their engineering organisation," we believe we know the answer.

Dear Boeing, our contact information is on the website. You might want to give us a call.