



Opinion: What Could Go Wrong For Aerospace Industry?

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Each fall, I am privileged to speak at the [SpeedNews AerospaceDefenseChain Conference](#) with three distinguished industry observers on a panel recurrently entitled “The Four Horsemen—Outlook and Trends Within the A&D Industry.” The title is a cheeky moniker the panel’s moderator has adopted to brand what is always a lively quartet of ideas on the mostly bright future of aerospace and defense.

Considering the allusion in that title to the biblical prophecy of the Apocalypse, however, it is hard not to frame my remarks with a darker thought exercise. The Four Horsemen in the Book of Revelation, let us recall, are no cowpokes but terrible harbingers of the end of times, each marked by the color of the horse he rides to summon a hardship which by degrees is more cataclysmic than the last.

Holding that allusion in mind, I use the seasonal tradition of AerospaceDefenseChain to harvest my critical thinking about the things that could possibly go wrong and turn to doom and dust today’s happy outlook on the second century of aerospace. Put differently, “How could we screw this up?”

Revelation’s first horseman, riding the white steed of Conquest, uses false idols to subjugate humanity. To mix the metaphor, what might a white Trojan horse look like that uses such a deception to induce our industry’s demise? Consider our technology idolatry. The aerospace industry should exercise caution before reflexively extrapolating a proud history of higher-faster-farther technical achievements into its second century of ambition. Former [Boeing](#) executive Chris Chadwick struck the right note, however unsettling, when he told an Air Force Association meeting in 2015 that “we cannot invent our way to the future,” but instead must conceive “things that customers can use in unique ways to create better and sustainable value—providing innovation beyond just the technology itself.”



Revelation's second horseman rides the crimson red horse of War while wielding a sword with the power "to make men slay each other." How might such a War horse exert its power to ignite an aerospace-industry conflagration? Through trade, no doubt, of which we already speak in martial metaphors. At stake is the very fount of our industry's pronounced growth over the past quarter-century, during which there has emerged a progressively globalized industrial structure from what had been a fragmented collection of mostly national markets.

Like any well-functioning exchange, aerospace trade does require rules to level the playing field and referees to police infractions. But it also requires forbearance in humble deference to the fact that the tools of a trade war are not quill pens but sharpened swords capable of slaying our prosperity.

The horseman behind the third seal on the scroll of Revelation is riding the black horse of Famine—scarcity, poverty, exhaustion. What is the 21st-century sustenance of which the aerospace industry may one day find itself impoverished? Consider digital technology, that foundation of the Third Industrial Revolution. Aerospace feasted on the natural resources and mechanical know-how of the Machine Age, mastering their possibilities into its leading industrial wonders.

The Digital Age, however, involves a different diet, and digital-native enterprises, not aerospace companies, are making the pathbreaking achievements of its early decades. Business history is replete with case studies of corpulent companies that starved crossing the threshold separating one foundational technology to the next (think Curtiss-Wright aircraft and Kodak cameras).

At last there comes the fourth horseman, Death itself, who rides a sickly pale horse and mows fragile prey of pestilence into the jaws of Hades. What plague of business could possibly turn today's vigorous aerospace enterprises into walking dead victims? Consider what Bain & Co.'s Eric Garton calls "incumbency sclerosis." "Hobbled by overly complex organizations and inflexible operating models," Garton writes, "victims find it difficult to mount a rapid response, even when the threat is completely obvious and perhaps even life-threatening."

Certain symptoms of incumbency sclerosis already are present in our industry—contempt for customers, disdain for entrants and the conduct of what economists call rent-seeking behavior to secure unnatural competitive advantages.

Unlike those who would adhere strictly to the prophesy of Revelation, I hardly regard as inevitable a progression toward the doom of aerospace imagined in these cautionary thoughts. If not fully bright, my general outlook for aerospace and defense is certainly much lighter. Still, whether it manifests as four horsemen or a quartet of disruptive engineers at the bench, real strategic danger awaits the second century of aerospace. We could yet screw this up.

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