



Post

Twelve Problems Negatively Impacting Defense Innovation

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As the US wrestles with a rapidly changing security environment, the creation of new military capabilities to counter these growing threats is essential. Defense leaders are being forced to relearn, as they have had to do in every conflict since the Revolutionary War, that one cannot just turn on a spigot and obtain weapons on demand. Industrial base constraints reliably manifest themselves in multi-year lead times such as we are seeing today to replace munitions used in [Ukraine](#). Our quandary, however, is much greater than just reconstituting peacetime stocks of existing systems. Any impending conflict, or perhaps more optimistically the ability to deter a future conflict, will require not only production at scale, but innovation at scale that hasn't been seen since WWII and the early Cold War.

The US is nowhere near being ready to embark on such an effort. Before doing so the Department of Defense (DOD) and Congress need to understand the depths of the issues that are holding back America's ability to regain the level of technological dominance necessary to maintain deterrence or prevail in a war if deterrence fails. The following twelve problem areas are offered to begin to frame that understanding. We need to focus our attention on the right problems, as well-intended solutions to the wrong ones will end up just exacerbating our decline. This is not an all-inclusive list. One could easily nail 95 innovation theses to the doors of the Pentagon if security would

allow it. Still, this represents an initial attempt to identify some of the more significant barriers that will prevent US military success unless we act soon.

- 1) There is no sense of urgency yet. Defense management systems and the industrial base are optimized for a peacetime cadence after 30 years without a Great Power conflict. It took years to get to this point and without focused leadership we will never adjust to a different set of circumstances.
- 2) Process compliance is our most valued objective rather than time. Time to operational capability as described in the report “[Competing in Time](#)” has been the primary historical forcing function for disruptive innovation, and yet it is not valued in DOD or Congress.
- 3) We are all communists now. Just as was the case in the Soviet Union, centrally planned, linear, predictive processes and mindsets destroy innovation and creativity. These processes [took root at DOD in the 1960s](#) under McNamara and have had 60 years to engrain themselves in culture.
- 4) Budget inflexibility in year of execution and long lead times to allocate resources are at the root cause of our declining competitiveness and innovation failures (especially in the many versions of the Valley of Death).
- 5) The predictive and lumbering requirements process forecloses innovation opportunities from the start as it is the gateway to the acquisition and budgeting system.
- 6) Operational interests are not aligned or supported within the acquisition and budgeting systems – both at the combatant command and service component command levels.
- 7) The barriers to civil-military integration of the industrial base have continued to widen as DOD prefers to dictate solutions to defense unique monopoly providers that have taken on many of the characteristics of pre-WWII government run arsenals.
- 8) Defense contracting has become more of an enforcer of socio-economic programs and goals than an enabler of capability. Unique non-market rules keep out non-traditional and commercial companies and solutions and drive-up costs.
- 9) The authority and ability of program officials to do their jobs has been limited by adversarial oversight. Incentives and rules drive contracting officer enforcement of process rather than capability outputs or program objectives. Testing, technology, and

auditing bureaucracies double down on “gotcha” check the box oversight rather than provide cooperative insights and proactive value add.

10) Production capability is a key component to innovation and has been allowed to deteriorate both in the traditional and commercial industrial bases. DOD ignored the implications of the last two decades of commercial globalization and production outsourcing to China that has hollowed out the US industrial base. Just in time efficiency requirements and barely minimal sustainable production rates have destroyed defense specific industrial capabilities and undermined military readiness.

11) Incentives for industry are not aligned to DOD innovation interests. The preponderance of cost contracts, counterproductive reimbursement rates and policies, and lack of program opportunities have left the traditional defense industrial base and government organic depots to be built around long-term maintenance revenues and decades long weapon systems franchises making it politically difficult to modernize.

12) Security and technology control policies (ITAR) are built around an era of US defense technological dominance that has long passed and now serve as barriers to innovation. Both Silicon Valley and allied cooperation will be needed to compete against China but outdated thinking and processes hinder such cooperation.

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