



Defense Business Board Industry Partnerships for Crises

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12 November 2024

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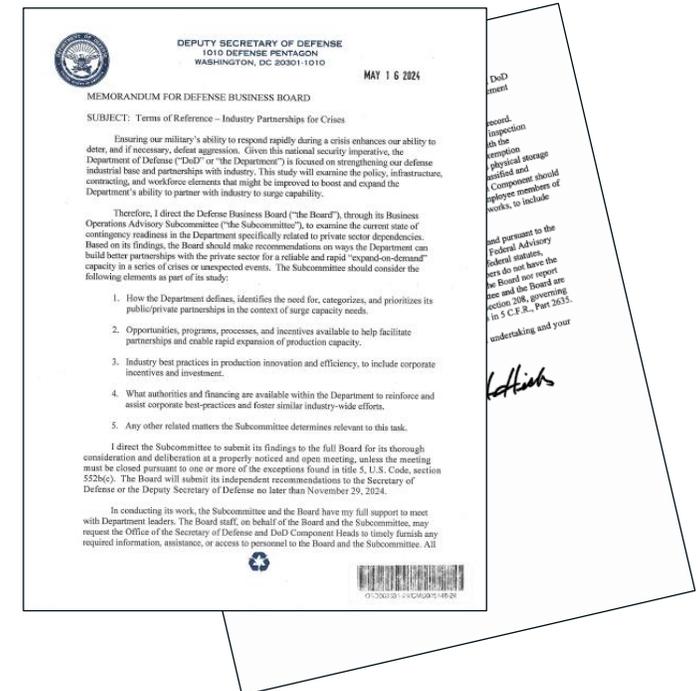


Task

The Deputy Secretary of Defense directed the Defense Business Board to:



- Make recommendations on ways the Department can build better partnerships with the private sector for a reliable and rapid “expand-on-demand” capacity in a series of crises, unplanned or unexpected events.



Surge Capacity

A Working Definition



surge capacity

1. The ability to quickly expand supply, production, and delivery of materials and services in response to unplanned or sudden upticks in demand.
2. Facilities and equipment that are unutilized or underutilized during normal peacetime operations.
3. The ability to leverage output potential from allies and partners.
4. Inclusive of the point of first supply to the “last mile” to the warfighter.

*Industry
Partnerships
for Crises*

Situation



DoD & Industry have partnered to respond to crises throughout history.

- **Lessons learned:**
 - Industry innovation / capabilities are crucial to national security
 - Developing and ramping up manufacturing and supply capacity takes planning, time and coordination
 - Defense supply, production and delivery cannot be easily “turned on and off” as threats change
 - It is costly to be a monopsonist, shared demand and risk is optimal



<https://histclo.com/essay/war/ww2/cou/us/us-aode.html>



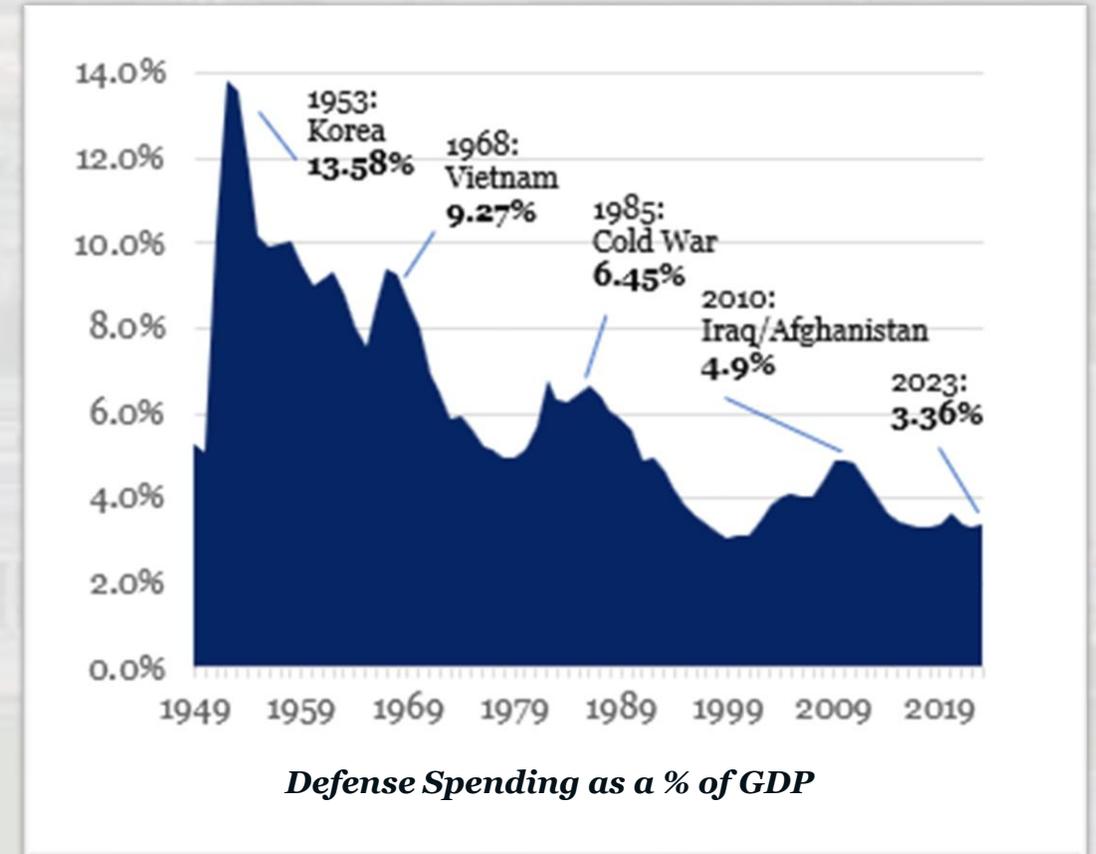
The climate for defense partnerships has become more difficult over time...

<p style="text-align: center;">↓ <u>System Quantity</u>, ↑ <u>Complexity</u></p> <ul style="list-style-type: none">• Since 1980, DoD weapons systems and munitions have increased in capability but decreased in order size & quantity:<ul style="list-style-type: none">• Navy – 50% fewer battle ships• Army – 30% fewer tanks• Air Force – 60% fewer fighter aircraft• Most systems & munitions now consists of both hardware & software	<p style="text-align: center;">↑ <u>DoD Dependency on Industry</u></p> <ul style="list-style-type: none">• Vastly capable - 1.1 million U.S. workers, 60k companies• Majority of DoD industrial facilities are GOCO• DoD is no longer the leader in R&D spending• Issues with end-to-end value chain management of DoD acquisition and production processes have resulted in many systems, munitions, and material being short, late, or over-budget
<p style="text-align: center;">↑ <u>Industry Consolidation</u></p> <ul style="list-style-type: none">• Major system integrators reduced, 51 to 5• 90% of all munitions from 3 sources• Defense workers down 66% since 1985• 17,000 suppliers have left defense in last 5 years	<p style="text-align: center;">↑ <u>Globalization</u></p> <ul style="list-style-type: none">• 90% of businesses have relocated a portion of their operation overseas• U.S. manufacturing jobs fell from 20 to 13 million from 1979 to 2018• China controls 60% of the world's rare earth element (REE) supply, most of EV batteries and antibiotics supply• Private industry executives off-shore significantly driven by "short-termism financialization" and corporate taxes

Result: A challenging environment for surge.

...but the need for partnership has intensified.

- Great Power Competition, proliferation, and rise of new adversaries
- “Whole of country” to expand military might
- Reduction of DoD Budget as % of GDP
- Private sector ability to scale for capacity
- Persistence of unplanned events/crises
- DoD technical and value chain management talent retention challenges



DoD must continue to grow & cultivate industry partnerships: (For example)



Civil Reserve Air Fleet

- Created in 1951
- 25 commercial carriers
- Executes \$5 billion in annual DoD business
- Everyday airlift for 90% of DoD passenger / 40% bulk cargo movement
- Activated 3x in its history for crises

Commercial Augmentation Space Reserve

- Starts in 2025
- A CRAF-like partnership with space companies
- Managed by the Commercial Space Office—provides a single “front door” to streamline access to government business

Warstopper Program

- Created in 1992 by Defense Logistics Agency
- Disaster preparedness program
- Ensures availability of critical go-to-war supplies & suppliers
- \$45 million annual budget, <1% of DLA’s work

U.S. Army Joint Program Office for Armament & Ammunition

- Leading the DoD effort to replenish munitions stocks
- With industry partner, surged 155mm production from 14k to 36k a month since February 2022



Burning platform in the national spotlight...



Foreign Purchase of U.S. Ammo Maker Sparks National-Security Battle

Wall Street Journal, 5/22/24

Silicon Valley Wins Few Government Contracts

Wall Street Journal 7/11/24

Pentagon Runs Low on Air Defense Missiles as Demand Surges

Wall Street Journal 10/29/24

Why the U.S. Military Has to Hitch a Ride on Commercial Ships

Wall Street Journal 11/1/24

"...reluctant to invest in expansion without knowing that the Pentagon is committing to buying at increased levels..."

"...difficulty of ramping up production..."

"...The more sophisticated the missile, the harder to produce ..."

"...drawing on newer companies to help increase production..."

"...production capacity can't keep up..."

"...production isn't all for the Pentagon, 14 allies also buy..."

(Wall Street Journal, 10/29/2024)

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Solutions:
Findings &
Recommendations



Solutions



Finding	Recommendation(s)
<p>(1) The Civil Reserve Air Fleet (CRAF) and partnerships like it are the gold standard for mechanisms to ensure capacity in a crisis.</p>	<p>(1) Assess developing a “Software Surge” program, modeled after CRAF</p> <p>(2) Adopt an acquisition policy that specifies as part of the contract and rewards primes/subs who meet established surge preparedness metrics</p>

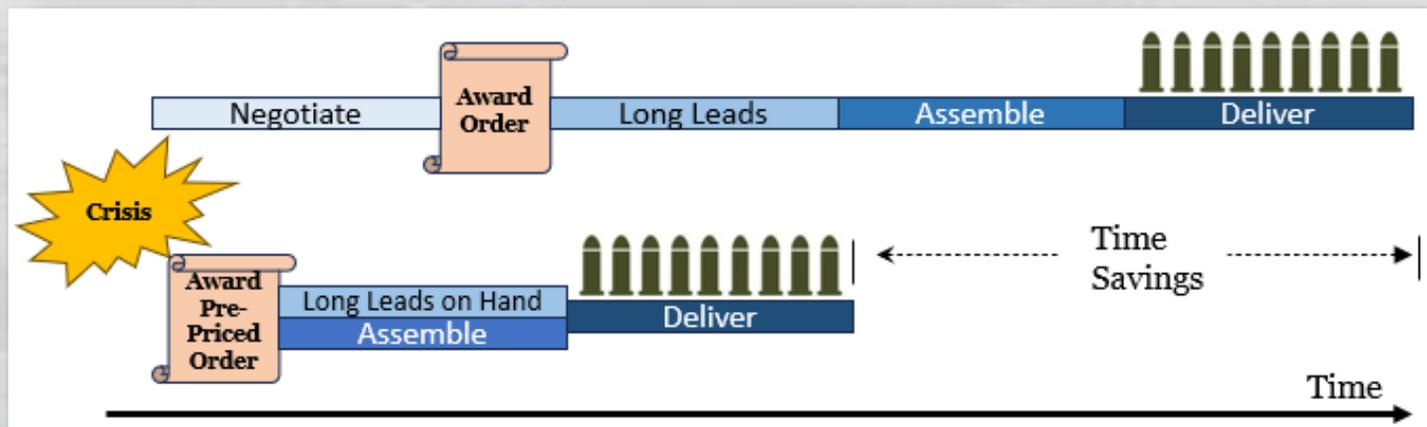


(#) – Report finding/recommendation number
(*) – Denotes requirement/potential for statutory changes or Congressional assistance.

Solutions



Finding	Recommendation(s)
(2) Companies need signed contracts and profitable financial results to remain in business with the DoD.	<p>(3) Negotiate capacity ahead of time. Establish variable pricing agreements/pricing tables on select weapon systems to expedite awards.</p> <p>(4) Establish a “capacity-as-a-service” pilot program to negate the effects of long lead item delays on capacity for critical weapon systems. Establish contractual vehicles with mechanisms to share costs of long lead components.</p>



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Solutions



Finding(s)	Recommendation
<p>(3) Foreign military sales and commercial sales are opportunities to level demand curves for some systems/supplies.</p> <p>(4) The requirements and design processes used in DoD acquisition are not optimized for partnerships with the broader commercial sector.</p>	<p>(5) Implement a collaborative planning, forecasting, and replenishment-type process, including probabilistic forecasting, contracting using portfolio and Option Theory, leveraging technology, driven by the DoD, and encompassing its major munitions and material suppliers.</p>



Solutions



Finding

(5) For other supplies and systems where there is neither FMS nor commercial demand existing to level demand, direct investment may be necessary.

Recommendation(s)

(6) **Expand the Warstopper program** to make annual investments with companies to ensure capacity is maintained to respond to a sudden surge. To start with, increase the budget for DLA's Warstopper program by 10x as a proof of concept; require an annual budget estimate thereafter.

(7) **Map the critical weapons and materiel supply chains** (sources and points of origin) to ascertain chokepoints and vulnerabilities in terms of surge capacity and response.



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Solutions



Finding	Recommendation
<p>(6) Adversarial tensions often pervade contractual relationships between DoD and industry, to the detriment of supply, cost, response, and surge capacity.</p>	<p>(8) Develop and hire the necessary talent at the central DoD level who understand private sector business imperatives: demand management, demand-supply matching, forecasting, options planning, and the common and advanced technologies available.</p>



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Solutions



Finding	Recommendation(s)
<p>(7) Regulations and statutes need to adjust to account for the changing environment of the defense industrial base.</p>	<p>(9*) Revise bona fide need rule exemptions to allow for critical long-lead parts and components to be stocked at “surge” or wartime consumption rates (in excess of system quantities currently purchased for peacetime training and operational usage).</p> <p>(10*) Revise “new start” provisions. Work with Congress to exempt existing acquisition programs transitioning from development to procurement from being considered “new starts” to avoid cost increases & program delays during continuing resolutions.</p> <p>(11) Transition to capability-based budgeting. Work with Congress to, where reasonable, transition from budget line items to capability portfolios to provide greater resource agility in crisis response.</p>



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Conclusion

DoD should continue to find ways to advance and strengthen its relationship with private industry by focusing on:

- Stabilizing demand, coupled with longer-term forecasting and supply planning
- Leveraging the CRAF model for other applications
- Increasing resource priority for preparedness programs like DLA's Warstopper
- Establishing strategies, new contracting methods, risk analysis processes, and technologies to manage risk and eliminate lengthy contract negotiations
- Developing / hiring talent for demand-supply matching, forecasting, risk management and options planning

