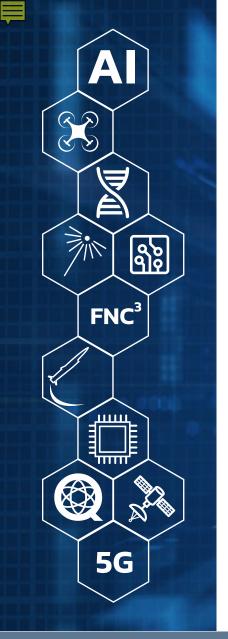




Hypersonics Supply Chains: Securing the Path to the Future

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GOAL

Assess the current state of hypersonics supply chains and provide actionable policy recommendations for their development, health, and resilience





Methodology & Overall Assessment



- Scope
- Partnership with University of Maryland Supply Chain Management Center
- Convened 8 working groups, comprised of 22 key stakeholders from industry, government, and academia.
- Conducted interview with representatives at all levels of hypersonics supply chains
- Compiled key findings from working groups, interviews, UMD research, and internal research into final report.
- Submitted report to a distinguished peer review committee and external reviewers prior to publication

Assessment:

Current hypersonics supply chains, including manufacturing base, supply of critical materials, testing infrastructure, and workforce are insufficient to affordably field hypersonic weapons at scale.



Key Findings



- Critical Raw Materials & Goods
- Manufacturing Base
- Testing
- Workforce
- Supply Chain Security & Vulnerabilities
- International Partnerships & Allied Nearshoring



Select Recommendations



- DoD <u>must</u> provide a clear, consistent demand signal to industry
- Further investment needed in high temperature materials such as carbon-carbon
- DoD should encourage venture capital to invest in areas where the hypersonics supply chains and growth of the space industry overlap
- Academia should be leveraged to educate mid-level hypersonic talent via the University Consortium for Applied Hypersonics (UCAH)
- DoD should increase the hypersonics flight test schedule



Select Recommendations (continued)



- DoD should conduct a study of the existing hypersonics workforce and share the results with industry to identify and address concrete shortfalls in order to scale up hypersonic production
- The defense industry should ensure that it has the traditional and additive manufacturing capabilities needed to produce hypersonics at scale
- OUSD A&S should ensure the acquisition workforce is adequately prepared for hypersonic procurement at scale through education and training
- U.S. government should look to Canada and Australia to diversify raw material supply and expand testing partnerships