Recommendation 37: Implement a defensewide capability portfolio framework that provides an enterprise view of existing and planned capability, to ensure delivery of integrated and innovative solutions to meet strategic objectives.

Problem

DoD's separate requirements, budgets, and acquisition decision-making processes fail to enable an enterprisewide view of existing and planned capabilities across Military Services and Defense Agencies to support timely and informed resource allocation decisions. The disjointed systems that make up the defense acquisition DSS (*big A acquisition* depicted in Figure 2-4), is one of the major inhibitors to achieving timeliness, flexibility, agility, and innovation. The second major inhibitor is lack of a DoDwide capability view and awareness to inform resource allocation decisions at all levels.

The friction and lack of connectivity among the three systems can impede rapid response to priority needs and timely delivery of material solutions.

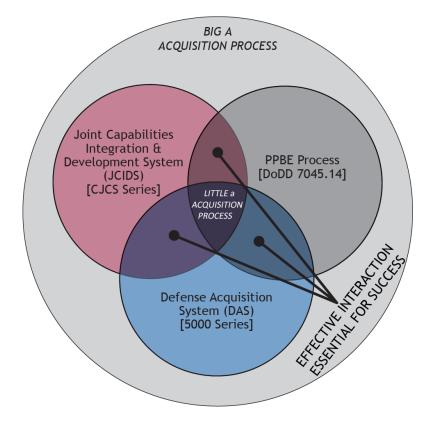


Figure 2-4. Defense Acquisition Decision Support Systems (DSS – Big A Acquisition)

Section 809 Panel, Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3, 30–43 (2018).

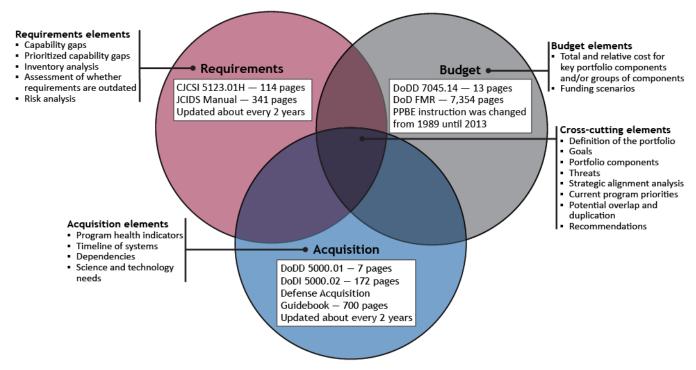
Background

DSS consists of three interrelated systems, with extensive, complex, and centralized decision-making processes driven by different timelines and system owners (see Figure 1-5).²

- The requirements system, known at the enterprise level as JCIDS, is administered by the Joint Staff and governed by the Chairman of the JCS Instruction (CJCSI) 5123.01H.
- The resourcing system, known as the PPBE system, is administered by the Director of Cost Assessment and Program Evaluation (D/CAPE) and the DoD Comptroller, and governed by DoDD 7045.14.
- DAS, is administered by acquisition personnel pursuant to guidance promulgated by the USD[A&S], including DoDD 5000.01 and DoDI 5000.02.

Figure 2-5. Description and Guidance for the DSS

Integrated Reviews Would Include Information from the Requirements, Acquisition, and Budget Communities



Linkages between the DSS sub-systems are not sufficiently defined to enable the success of acquisition programs

Each of these systems is initiated by inputs at the Military Services working level and includes a series of hierarchical reviews at the Military Service and enterprise levels. The senior enterprise-level decision-making body for requirements is the Joint Requirements Oversight Council (JROC), and for resources is the Deputy Secretary's Management Action Group (DMAG). Before the devolution of acquisition authority over the last 2 years, the Defense Acquisition Board (DAB) and the Under

² Ibid.

Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) played parallel roles in the acquisition decision-making process.

The initiation and progress of an MDAP require successful navigation of all three systems. For example, an MDAP cannot be initiated without the development of an initial capabilities document (ICD) through the requirements process, an MDA through the acquisition process, and funding delivery through the PPBE process. Similarly, a substantial change in requirements for an ongoing program is likely to require separate approvals through the requirements chain, the resourcing chain, and the acquisition chain.

For DSS to be responsive, the individual PM must coordinate and synchronize the activities to deliver warfighter capabilities. Because these processes are stove-piped and have separate decision makers and timelines, they are often out of synch. The result can be substantial delays and even stop-go-stop sequences based on inconsistent decisions that inhibit rapid response to priority needs and timely delivery of material solutions, as evidenced by late capability deliveries, cost overruns, and deteriorating technical dominance.

DoD has tried to coordinate the three processes using integrated product teams and to provide for cross-functional membership on decision-making entities (for example, the designation of the Under Secretary of Defense (AT&L) (USD[AT&L]) as a statutory advisor to JROC and the designation of the Vice Chairman of the JCS (VCJCS) as a DAB member. Because requirements, budget, and acquisition officials exert the greatest control when they stay within their own stovepipes, efforts to coordinate the three processes have been less successful than hoped, and decision-making has remained largely a sequential process.

In another effort to overcome DoD's stove-piped decision-making structure and better coordinate the three acquisition components, DoDD 7045.20 (promulgated in 2008), called for the establishment of capability portfolio managers (CPMs) with military and civilian coleads. The directive expressly provided that CPMs "have no independent decision-making authority, shall not infringe on any existing statutory or regulatory authorities, and shall work within established coordination processes." Because of these limitations, the portfolio approach quickly proved to be unenforceable, and although the directive is still in effect, it has had no discernible effect on the defense acquisition DSS processes.

The utility and power of portfolio management constructs has been used to help inform investment decision makers in the Army's PEO Ground Combat Systems (GCS). PEO GCS, teaming with Sandia National Laboratories, adopted a portfolio management approach to optimally invest in ground combat modernization over a 25- to 35-year timeframe. Through tightly knit, cross-functional stakeholder collaboration and use of decision analysis tools (Capability Portfolio Analysis Tool [CPAT]), the team was able to provide decision makers with key alternatives and scenarios to "help shape decisions to continue modernization of the \$10 [billion] Stryker family of vehicles (originally slated for cancellation) and to strategically reallocate over \$20 [billion] to existing modernization programs by not pursuing the Ground Combat Vehicle program as originally envisioned." Ultimately,

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³ Scott J. Davis et al., "Maximizing the US Army's Future Contribution to Global Security Using the Capability Portfolio Analysis Tool (CPAT)," *Informs Journal on Applied Analytics*, 46, no. 1 (2016): 91-108, https://doi.org/10.1287/inte.2015.0824.

the Army estimated the decisions amounted to more than \$5 billion in cost avoidance and 30 percent greater fleet performance per dollar spent.⁴

In the *Volume 2 Report*, the Section 809 Panel concluded that structural change—from program-centric management to a more robust, multitiered portfolio management system at the execution and enterprise level—is needed to reduce the current organization's time and information challenges created by the centralized command structure and provide greater agility in the requirements, resourcing, and acquisition processes. There are four key elements of this proposed shift to a portfolio management framework:

- Replacing the traditional PEO role with that of the PAE, as described earlier in Recommendation 36.
- Establishing Enterprise Capability Portfolios (ECPs) with civilian and military coleads to conduct cross-cutting analysis and to identify needed capabilities and gaps in such capabilities.
- Improving the defense sustainment enterprise, including developing SPBs to improve sustainment planning and execution.
- Improving the current requirements process governed by JCIDS with a management structure that allows for tradeoffs within the multi-tiered portfolio structure.

Discussion

At the enterprise level, the proposed portfolio management approach has four major features, each of which would represent a substantial improvement in the operation of the defense acquisition DSS:

- The capability portfolio approach would enable DoD, when making capital investment and sustainment decisions, to break out of the current, program-centric and process-focused approach across the DSS and consider instead capabilities and desired outcomes for those key decisions.
- The capability portfolio approach, if resourced with a stable funding source through the Undersecretary of Defense (Research and Engineering) (USD[R&E]), would enable DoD to employ a more agile and coordinated approach to innovation, experimentation, demonstration, and rapid prototyping.
- As requirements, budget, and acquisition decision authority are delegated in the Military Services and Defense Agencies to empowered subordinates, the portfolio approach would bring together DoD's decision processes, establishing a collaborative process that presents a complementary view at the enterprise and execution level.
- The new portfolio system would bring the three systems together by bridging the gap between stove-piped decision-making systems through linked, collaborative processes, enabling DoD to

⁴ Capability Portfolio Analysis Tool (CPAT) Overview, Stephen Henry, Sandia National Laboratories, presentation to Section 809 Panel, August 9, 2018.

field innovative solutions in a more timely and agile manner, moving the system from a serial decision-making process to a more concurrent process.

Implementation of capability portfolio management (CPM) at execution and enterprise levels is consistent with the current objective of the Combatant Command (CCMD), Military Service, and Defense Agency leadership: balancing investments in the future against today's requirements. With implementation of CPM, decision makers would consider capital investments differently—not as the latest in a series of weapons systems with enhanced capability but as an investment for which resources might better be applied to weapon systems modernizations or readiness in the same capability area. This portfolio structure would allow leadership to understand existing and planned capabilities across DoD.

Under the envisioned process, Military Service/Defense Agency-level portfolios—managed by newly-empowered PAEs (see Recommendation 36)—would be the primary vehicle for execution of the requirements, resources, and acquisition processes in the Military Services and Defense Agencies. The new PAEs would also provide portfolio information to ECPs, enabling the coleads to assess capabilities and identify critical gaps by using mission engineering and other appropriate analytic tools. This flow of portfolio information would also enable the coleads to present a common capability portfolio picture to decision makers in the enterprise-level requirements, resources, and acquisition decision-making chains.

The intended flow of capability portfolio information from PAEs to enterprise-level ECP is shown in Figure 2-6, a version of which appeared in the Section 809 Panel's *Volume 2 Report*. The graphic shows that a single enterprise-level capability portfolio is likely to include multiple execution-level portfolios – including portfolios from multiple Military Services, Defense Agencies, and from functional CCMDs with their own acquisition authority.⁵

⁵ Section 809 Panel, Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3, 42 (2018).

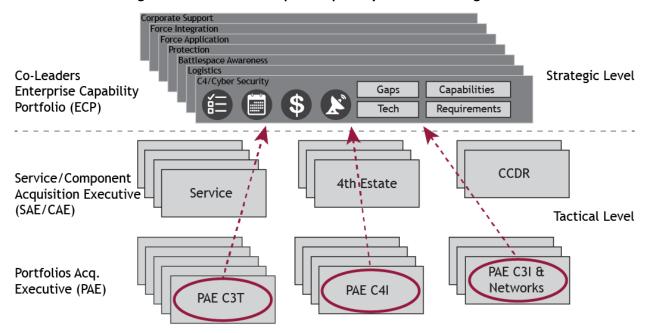


Figure 2-6. Notional Enterprise Capability Portfolio Management

DoD should unite the defense acquisition DSS views at the DoD level by establishing civilian and military ECP coleads for each ECP. The military chairs of the six FCBs in the requirements process would be concurrently assigned by the VCJCS to serve as military coleads of the ECPs. Civilian coleads would be nominated and approved by the Under Secretary for Defense (Acquisition and Sustainment) (USD[A&S]) and/or Under Secretary for Defense Research and Engineering (USD(R&E)) and selected by the Deputy Secretary of Defense (DSD). The civilian coleads would also lead relevant issues teams for the D/CAPE and the Comptroller to support the enterprise-level resources process. The two coleads would work jointly with the Under Secretary of Defense for Policy (USD(P)) and other key players to support the enterprise-level strategic planning process.

The ECPs would operate much as Military Services, Defense Agencies, and OSD Integrated Product Teams (IPTs). Each of the ECPs would have committed representatives from cognizant Military Service, Defense Agency, and CCMD offices. ECP coleads would propose a work plan to the DMAG for review and approval. With resources assigned (government and contractor), they would execute the plan and present recommendations to the DMAG. ECPs would also respond as tasked by D/CAPE to lead specific issue teams.

Military Service-level PAEs—with delegated responsibility and authority for capability portfolio requirements, budgets, and acquisition—would bring together the three elements of the defense acquisition DSS in a single office, enabling rapid and comprehensive commitments. The PAEs would not only be responsible for acquisition execution, they would also have authority over requirements and budgets, feeding the Military Service- and enterprise-level requirements and programming processes. The new portfolio system would bring the three systems together through linked, collaborative processes, enabling DoD to field innovative solutions in a more timely and agile manner.

Existing Decision-Making Processes

Implementation of a new multilayered portfolio process would help address deficiencies in the existing DSS that cause DoD to do the following:

- Focus on large, traditional programs instead of smaller, more innovative programs.
- Provide inadequate attention to cross-functional gap analysis and nontraditional solutions.
- Lack the agility needed to adjust to new technologies and new threats.
- Focus too much on process and paperwork, rather than major strategy and risk decisions.

The NDS calls for DSS to "prioritize speed of delivery, continuous adaptation, and frequent modular upgrades." As the NDS acknowledges, however, current processes are "over-optimized for exceptional performance at the expense of providing timely decisions, policies, and capabilities to the warfighter."

Because DSS decision-making processes are so burdensome, program advocates tend to focus their efforts on a few megaprograms that incorporate all available technologies in a single *big bang* acquisition. Recent examples include the Joint Strike Fighter, designed to meet the tactical aviation needs of three Military Services, and the acceleration of multiple advanced technologies onto the lead ship of a new class of aircraft carriers.

These megaprograms, which risk squeezing out available funding that could be used for rapid innovation and risk taking, too often fail to deliver as promised. When DoD tries to develop too many advanced capabilities within a single MDAP, delays in a single critical technology can slow down the entire program and cost billions of dollars. The resulting cost overruns can present funding difficulties for smaller, more innovative programs.

To overcome this problem, DoD needs the ability to rapidly develop less ambitious, more innovative programs. A more diverse portfolio—including smaller, more flexible investments—would enable DoD to adapt more quickly to emerging technology and respond more effectively to changes in the threat environment.

Providing multiple alternative vehicles for maturing technology should also reduce the temptation for larger programs to try to incorporate all available technologies in a single increment and make larger systems more agile and flexible. Some of the smaller investments may fail, but unlike the megaprogram failures dominating the defense budget today, such failures would be an acceptable cost of progress.

Cross-Functional Gap Analysis and Nontraditional Solutions

The NDS calls for increased use of nontraditional suppliers, new entrants, and small-scale vendors that can provide cutting-edge technologies. This approach, the NDS states, will "allow the Department to more quickly respond to changes in the security environment and make it harder for competitors to offset our systems." The current acquisition system relies on the traditional command organizational

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⁶ DoD, A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, 10, accessed December 30, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

⁷ Ibid, 11.

structure to develop new programs from the bottom up. Regardless of the problem, a tank and automotive command is likely to see a new land system as the appropriate solution, while a sea systems command is likely to identify a new surface combatant as the appropriate solution. As a result, the acquisition system tends to focus its energy on developing the *next generation* of existing systems, rather than identifying innovative new approaches. Gap analyses and analyses of alternatives are too often used to justify traditional programs, rather than seriously consider new technologies and new solutions.

To overcome this problem, DoD needs an approach that considers alternative approaches before focusing on a solution. A cross-cutting analysis of gaps and overlaps should take place *before*, not after, DoD settles on a particular material solution to a military problem. A portfolio-based acquisition approach should enable such cross-cutting analysis.

One possible approach would be to apply mission engineering. Mission engineering would provide leadership with tools to facilitate a view of current capabilities and future requirements, thus equipping decision makers with the information necessary to better prioritize limited resources. Successful mission engineering combines the structure of systems engineering with the tactical insights of operational planning. Mission engineering maps system capabilities to mission needs at the capability portfolio level.⁸ Mission engineering emphasizes data driven, capability-based assessments to produce integrated warfighting capabilities that can be translated into specific programmatic guidance for strategic programs and can visually identify gaps.

The mission engineering analysis results are captured in effects/kill chains. These effects/kill chains identify operational needs based on the planned way to fight through mission threads captured in the CCMDs' Operational Plans (OPLANs) and Contingency Plans (CONPLANs). The effects/kill chains may then be used to illuminate capability advantages and disadvantages of the alternatives; consider joint operational plans; examine sufficient feasible alternatives; characterize key assumptions, variables, and sensitivities; and assess technology risk and maturity. For example, the system's ability to achieve the desired capability is assessed in terms of red, yellow, or green. Red would mean some significant degradation to mission; green would indicate the desired capability is being achieved. The analysis provides decision makers with a view of the system capabilities and how investment in resolving issues affects the overall mission and capability delivery.

Existing Decision-Making Processes Lack Sufficient Agility

The NDS calls for a "rapid, iterative approach to capability development" with rapidly evolving platform electronics and software instead of "static configurations that last more than a decade," to reduce costs, technological obsolescence, and acquisition risk.⁹ The current, centralized DSS, with its three separate decision stovepipes, hinders speed and innovation. Not only are small, innovative

⁸ "Mission Engineering Integration and Interoperability (I&I)," James D. Moreland, Naval Sea Systems Command, accessed August 2, 2018, https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Dahlgren/Dahlgren-Resources/Leading-Edge/I-I-Leading-Edge/Moreland/.

⁹ DoD, A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, 11, accessed December 30, 2018, https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

programs disfavored, but large programs designed to meet future threats rely on locked-in baselines that limit their ability to respond to new threats and new technology developments.

Private-sector entities and some federal government elements (including the intelligence community) bring together requirements, resourcing, and acquisition decision-making processes to enable decision makers to promulgate needed changes at the speed of relevance. The DSS process, which separates these three processes, makes it extremely difficult to promulgate significant modifications after a program is underway. As a result, DoD adheres to existing requirements long after they clearly cannot be met at reasonable expense and defers critical and available new technologies to future upgrade programs that lie in the indefinite (and unfunded) future. To overcome this problem, DoD needs to create trade space in which reasonable decisions to trade cost, schedule, and performance against capability could be made in real time.

Existing Decision-Making Processes Focus Too Much on Process and Paperwork

The NDS notes that DoD's management structure and processes "are not written in stone," but are "a means to an end"—empowering warfighters with the knowledge, equipment, and support systems to fight and win.¹⁰

The current DoD organizational structure includes many separate stovepipes—each with its own bureaucracy and staff—that are empowered to say *no*, rather than work toward solutions to warfighter problems. The result is a system in which senior decision makers and their supporting staffs devote too much attention to process, procedure, and paperwork, rather than focusing on the major strategy and risk decisions that should be made at the enterprise level. Too often, innovative solutions are bogged down by a micromanaged process in which, as GAO found in a 2015 review, it takes an average of more than 2 years and 5,600 staff days to complete the 49 information requirements needed to support a single acquisition milestone decision.¹¹

To overcome this problem, DoD needs a process by which senior decision makers make major strategy and risk decisions but leave the day-to-day management of individual portfolios and programs to hands-on managers. A multitiered portfolio approach should address this problem by assigning management responsibility to strong, new portfolio managers.

Conclusions

DoD needs a total lifecycle, multitiered, capability portfolio framework for capital investments that continuously seeks to integrate the separate requirements, resourcing, and acquisition decision stovepipes of the current DSS program-centric framework. DoD needs that framework for resource allocation at all management levels to compete in the 21st century where innovation, flexibility, and response time are critical. The multitiered portfolio framework under which authority is delegated can more effectively prioritize innovation and experimentation, consider nontraditional solutions, conduct more effective gap analysis, respond to new threats and rapidly integrate technologies in a more agile

¹⁰ Ibid, 10.

¹¹ GAO, Acquisition Reform: DOD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies, GAO-15-19, February 2015, accessed December 30, 2018, https://www.gao.gov/assets/670/668629.pdf.

manner, and reduce the burdens of bureaucracy and micromanagement. Framework implementation would be facilitated by doing the following:

- Expand or adopt successful portfolio management models developed in DoD—such as FCB portfolios—and the private sector to the special imperatives and relationships in DoD organization. Private-sector portfolio management principles have been adopted in some parts of the government, as exemplified most recently by Office of Management and Budget (OMB) Memorandum M–18–19, and over the longer term by the portfolio standards incorporated into OMB Circular A–11. With some adjustment to accommodate requirements of the appropriations process and the Military Service-based DoD organizational structure, these standards might be incorporated into DoD's new capital investment system as well.
- Empower PAEs in the Military Services and Defense Agencies with delegated authority to collaborate with peers in requirements and resourcing within trade space provided and to present a common portfolio and program picture to Military Service-level and OSD/JCS leadership. This framework would minimize time to commitment, resulting in a more agile system that has the flexibility to respond to changing threats and emerging technologies.
- Designate senior DoD officials (military and civilian) as ECP coleads and charge them with integrating, synchronizing, and coordinating capability portfolio content to address capital investment alignment to strategic priorities and capability demand. ECP coleads would have no independent decision-making authority but would be responsible for providing cross-cutting analysis of capability portfolios and presenting a common capability portfolio picture to enterprise-level decision makers. ECPs will be aligned with the already-established FCBs initially; however, they may evolve together over time to provide as broad and segmented view of enterprise capabilities as possible to inform requirements, resourcing, and acquisition/sustainment decisions.¹²
 - Require ECP to develop strategic plans and roadmaps to provide a vision for the evolution of missions within their capability portfolios over time, help drive S&T investment and provide metrics for measuring capability portfolio performance.
 - Require a 20 year strategic plan which leverage the operational expertise of the CCMDs and the Senior Warfighter Forums—as well as scenario-based war games, mission engineering, and other strategic analysis that focus on desired outcomes rather than projected systems to identify capability and resource mismatches, including gaps, shortfalls, and redundancies
 - Require adequate resourcing of ECPs to produce these plans, as well as other portfolio-level documents.
 - Require aligned execution portfolios and ECPs to share information continuously because both assess current and needed capabilities, including cross-cutting capabilities, for presentation with recommendations to the DoD decision makers at all levels.

¹² There are currently six FCBs, with responsibility for C4/Cyber, Battlespace Awareness, Logistics, Force Integration, Protection, and Force Application, respectively. An additional Joint Capabilities Area (JCA), for Corporate Management and Support, does not have an FCB, and is included instead in a separate portfolio process led by the Chief Management Officer.

- The ECP military coleads will serve concurrently as FCB chairs. The civilian coleads can lead issue teams on behalf of the D/CAPE and the Comptroller. The two coleads would also work together to identify cross-cutting acquisition issues that should be raised through the USD(A&S) and the USD(R&E) and VCJCS to the DMAG and JROC.
- Approve a portion of the defensewide funding line for rapid development/prototyping (including the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA) controlled by the USD(R&E), a portion of which will be allocated to the ECPs to provide seed money for key Execution and Enterprise portfolio priorities in accordance with strategic plans. Such a dedicated fund for emergent (within budget cycle) innovative and agile acquisition initiatives would provide a lever with which ECPs could address unfunded gaps or opportunities in Military Service execution strategic plans in support of programs.

Implementation

Legislative Branch

Note: Legislative implementation here are identified as subrecommendations to allow for better reference to them in the draft legislation text in the Implementation Details section that follows.

- Subrec. A: Direct DoD to transition the current DAS to a total lifecycle, multitiered (execution and enterprise), capability portfolio-centric framework that integrates requirements, budget, and acquisition/sustainment for capital investments/resource allocation. Incorporate above recommendations in a revision to DoDD 5000.01, The Defense Acquisition System Directive. A draft revised DoDD 5000.01 is attached in the Implementation Details for this section.
- Subrec. B: Direct DoD to establish ECPs to integrate, synchronize, and coordinate capability portfolio content to address capital investment alignment to strategic priorities and capability demand. ECP should be led by senior civilian and military personnel of SES/flag/general rank, pointed by DSD and VCJCS respectively. ECP coleads would have no independent decision-making authority but would be responsible for providing cross-cutting analysis of capability portfolios and presenting a common capability portfolio picture to enterprise-level decision makers.
- Subrec. C: Direct DoD to establish processes for ECPs to use a portion of defensewide funding for rapid development/prototyping funding controlled by the USD(R&E) to provide seed money for key portfolio priorities in accordance with strategic plans.
- Subrec. D: Provide increased flexibility in the appropriations and reprogramming processes, including the enhanced reprogramming authority discussed in Recommendations 46-48 of this report, to ensure that PAEs can provide timely responses to new threats, emerging technologies, and developments in portfolio performance.

Executive Branch

• Revise DoDD 5000.01, Defense Acquisition System, or cancel it and initiate a new directive that will be The Defense Capability Acquisition and Sustainment Framework that will:

- Maintain and/or strengthen principles and policies in the existing DoDD 5000.01 while establishing a new model, Defense Capability Acquisition and Sustainment Framework (DCASF). The DCASF will be a through lifecycle, multitiered, capability portfolio acquisition and sustainment framework for capital investments that continuously seeks to integrate requirements, budget, acquisition/sustainment views of programs and services for more informed and collaborative decisions. Rescind DoDD 7045.20, Capability Portfolio Management, and include in revised DoDD 5000.01 or new Directive for Defense Capability Acquisition and Sustainment Framework and include its provisions for full-time civilian and military coleads to provide cross-cutting analysis and present a common capability portfolio picture to enterprise-level decision makers.
- Provide for the DSD to appoint civilian ECP coleads who are experienced members of Senior Executive Service from a slate provided by USD(R&E) and USD(A&S). Nominees may come from any DoD acquisition activity or organization.
- Provide for the military ECP colead to be a general or flag officer appointed by the VCJCS in consultation with Military Services and CCMDs. ECP military coleads will serve concurrently as chair of the relevant FCB in the JCIDS process.
- Require that ECPs have visibility on the full range of weapon systems and any evolving crosscutting mission areas.
 - Note that the ECPs would not include business systems, because DoD is already developing separate business system portfolios under the Chief Management Officer's leadership.
- Require DSD and VCJCS to develop a DoD implementing directive for the operation of the ECPs that includes but are not limited to the following:
 - ECP coleads are jointly responsible for raising cross-cutting issues in the enterprise requirements, programming/budgeting, and acquisition review processes.
 - ECP coleads are responsible for identifying cross-cutting requirements, programming/budgeting, and acquisition/sustainment issues and raising them with the Military Services (and appropriate Defense Agencies).
 - ECP civilian colead leading issues teams through the 3-Star and DMAG review processes.
 - ECP coleads are responsible for identifying cross-cutting acquisition issues, raising them to the Military Services (and appropriate Defense Agencies), and if necessary, working them through USD(A&S) and/or USD(R&E) to the DMAG.
 - ECP coleads develop strategic plans and roadmaps to show a vision for the development of capability portfolios over time and to help drive S&T and rapid capability investments.
 - ECP coleads establish positive relationships with PAEs, to include exchange of information, data, decisions, and planning, working toward a common view of every particular capability set.
 - Establish a defensewide funding line for rapid development/prototyping funding (including
 the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA)
 under control of the USD(R&E), with a portion available to ECP coleads to provide funding
 for use by Military Service/Defense Agency execution portfolio to address priority
 opportunities when Military Service/Defense Agency funding is unavailable.

Implications for Other Agencies

There are no cross-agency implications for this recommendation.

RECOMMENDED REPORT LANGUAGE

SEC. ___. IMPLEMENTATION OF RECOMMENDATIONS OF THE SECTION 809 PANEL RELATING TO PORTFOLIO MANAGEMENT.

This section would require the Secretary of Defense to implement, within 180 days after date of enactment, the recommendations of the acquisition advisory panel established under Section 809 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The Secretary also would be required to make any necessary revisions to directives, instructions, and policy documents necessary to implement the recommendations. A report on implementation, along with legislative recommendations, would be submitted to the congressional defense committees 180 days after date of enactment.

The committee agrees with the assessment of the Section 809 Panel that transitioning defense acquisition from a program-centric model to a capability portfolio framework is critical to improving the defense acquisition process, enabling a more agile, flexible and decentralized organization. The committee, however, is aware that attempting to specify in statute the internal management relationships recommended by the panel would entail a level of detail relating to management structure within the Department not typically seen in statute, with the attendant risks both of inadvertent error and of inflexibility for the future. The committee expects the Department to fully consider the rationale and framework outlined in the Section 809 Panel report, dated January 15, 2019, when developing its proposals to implement the panel's recommendations.

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The Section 809 Panel believes that its recommendations relating to a capability portfolio framework are critical to improving the defense acquisition process and that these recommendations should be required to be implemented as a matter of law. The panel believes that an implementation requirement with the force of law, with a statutory deadline, will be essential to driving the timely implementation of these recommendations within the Department of Defense.

At the same time, the panel is aware that attempting to write into statute the internal management relationships recommended by the panel would entail a level of detail relating to management structure within the Department not typically seen in statute, with the attendant risks both of inadvertent error and of inflexibility for the future.

The Panel notes that in section 868 of the NDAA for FY2019 (Public Law 115-232, enacted August 13, 2018), Congress required the Secretary of Defense to implement the recommendations of the final report of the Defense Science Board task force on the design and acquisition of software for defense systems. The panel believes that that is an appropriate model for Congress to use in directing implementation of these recommendations and is providing draft legislative language accordingly.

(Based on Section 868 of the FY2019 NDAA, P. L. 115-232, enacted Aug 13, 2018)

1 SEC. . IMPLEMENTATION OF RECOMMENDATIONS OF THE SECTION 809 2 PANEL RELATING TO PORTFOLIO MANAGEMENT. 3 (a) IMPLEMENTATION REQUIRED.— 4 (1) IN GENERAL.—Not later than the end of the 180-day period beginning on the 5 date of the enactment of this Act, the Secretary of Defense shall, except as provided in 6 subsection (c), implement the portfolio management recommendations made by the 7 Section 809 Panel that are specified in paragraph (2). 8 (2) COVERED RECOMMENDATIONS.—The recommendations referred to in 9 paragraph (1) are the recommendations set forth in Volume 3 of the Report of the Section 10 809 Panel, dated January 15, 2019, that are designated as follows:

1	(A) Subrecommendation A of Recommendation No. 36, relating to
2	transitioning from a program-centric execution model to a portfolio execution
3	model.
4	(B) Subrecommendation A of Recommendation No. 37, relating to
5	transitioning the current defense acquisition system to a defense capability
6	acquisition and sustainment framework.
7	(C) Subrecommendation B of Recommendation No. 37, relating to
8	establishing Enterprise Capability Portfolios (ECPs)
9	(b) Implementation.—
10	(1) SUBMISSION OF IMPLEMENTATION PLANS TO CONGRESSIONAL COMMITTEES.—
11	For each recommendation specified in subsection (a)(2) that the Secretary is
12	implementing, or that the Secretary plans to implement, the Secretary shall submit to the
13	congressional defense committees a report providing—
14	(A) a summary of actions that have been taken to implement the
15	recommendation; and
16	(B) a schedule, with specific milestones, for completing the
17	implementation of the recommendation.
18	Each such report shall be submitted not later than 180 days after the date of the enactmen
19	of this Act.
20	(2) REVISED DIRECTIVES.—Not later than 180 days after the date of the enactment
21	of this Act, the Secretary shall issue such revisions to Department of Defense directives,
22	instructions, and policy documents as necessary for the implementation of
23	recommendations under this section. In preparing such revisions, the Secretary shall

consider the draft revisions to Department of Defense Directive 5000.01 provided by the
Section 809 Panel as an enclosure to Volume 3 of the Report of the Panel.
(3) STATUTORY REVISIONS.— Not later than 180 days after the date of the
enactment of this Act, the Secretary shall submit to Congress a legislative proposal for
any statutory changes that the Secretary determines to be required to fully implement the
recommendations under this section.
(c) Exceptions.—
(1) DELAYED IMPLEMENTATION.—The Secretary of Defense may delay
implementation of all or any portion of a recommendation specified in subsection (a)
after the date specified in paragraph (1) of that subsection if before that date the Secretary
submits to the congressional defense committees a report—
(A) identifying the recommendation or portion of the recommendation for
which implementation is to be delayed;
(B) describing the delay in implementation; and
(C) providing a specific justification for the delay.
(2) NONIMPLEMENTATION.—The Secretary may opt not to implement a
recommendation, or a portion of a recommendation, specified in subsection (a) if the
Secretary submits to the congressional defense committees a report—
(A) identifying the recommendation or portion of the recommendation that
the Secretary has opted not to implement; and
(B) providing —
(i) the reasons for the decision not to implement the
recommendation; and

1	(ii) a summary of the alternative actions the Secretary plans to take
2	to address the purposes underlying the recommendation.
3	(d) SECTION 809 PANEL.—In this section, the term "Section 809 Panel" means the panel
4	established by the Secretary of Defense pursuant to section 809 of the National Defense
5	Authorization Act for Fiscal Year 2016 (Public Law 114-92), as amended by section 863(d) of
5	the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) and sections
7	803(c) and 883 of the National Defense Authorization Act for Fiscal Year 2018 (Public Law
3	115-91).

RECOMMENDED REPORT LANGUAGE

SEC. ___. REVIEW OF STRUCTURE OF BUDGET LINE ITEMS AND PROGRAM ELEMENTS FOR FUNDING OF DEFENSE ACQUISITION PROGRAMS.

This section would require the Secretary of Defense to conduct a comprehensive review of the existing budget line item and program element structure for Department of Defense acquisition programs. Under this section, the objective of the review would be to (a) address cases in which programs or systems have been subdivided into multiple line items or program elements, making them more difficult to manage and (b) identify cases in which multiple programs or systems intended to provide a common capability could be combined into a single line item or program element. A report of the review, along with legislative recommendations, would be provided to the congressional defense committees one year after date of enactment.

The committee notes that this review should facilitate implementation of other legislative recommendations in this title to create a portfolio management structure. The committee further notes that one of the biggest challenges to implementing a portfolio structure is the current allocation of program budgets, with most procurement programs being funded and managed through individual budget line items, or in some cases, program elements.

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1 SEC. REVIEW OF STRUCTURE OF BUDGET LINE ITEMS AND PROGRAM 2 ELEMENTS FOR FUNDING OF DEFENSE ACQUISITION PROGRAMS. 3 (a) REVIEW REQUIRED.—The Secretary of Defense shall conduct a comprehensive review 4 of the budget line item and program element structure for acquisition programs within the budget 5 of the Department of Defense, with the objective of— 6 (1) identifying cases in which management of a program or system has been made 7 more difficult due to the program or system having been subdivided into multiple budget 8 line items or program elements; 9 (2) identifying cases in which the budget line items or program elements for 10 multiple programs or systems intended to provide a common capability could be 11 combined into a single budget line item or a single program element; and 12 (3) identifying steps that could be taken to address the cases identified under 13 paragraphs (1) and (2). 14 (b) REPORT.—Not later than one year after the date of the enactment of this Act, the 15 Secretary of Defense shall submit to the congressional defense committees a report providing the 16 results the review under subsection (a), together with the Secretary's plan for any changes to be 17 made within the Department of Defense resulting from the review and such recommendations for

legislative action as the Secretary considers appropriate as a result of the review.

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RECOMMENDED REPORT LANGUAGE

SEC. ___. PILOT PROGRAM FOR IMPROVED FINANCIAL FLEXIBILITY WITHIN PORTFOLIO MANAGEMENT OF PROGRAMS.

This section would authorize the Secretary of Defense to carry out a pilot program under which one execution portfolio in each military department would be managed under a single budget line item (with respect to procurement funding) and a single program element (with respect to research, development, test, and evaluation funding) for all programs and activities of that military department included in that portfolio. Each pilot program would be designated 180 days after date of enactment. A report on results of the pilot program would be submitted to the congressional defense committees five years after the start of the program.

The committee notes, that as outlined in this section, the intent of the pilot program would be to provide the portfolio manager with flexibility to move money in response to changes in technology and other program developments.

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SEC. ___. PILOT PROGRAM FOR IMPROVED FINANCIAL FLEXIBILITY WITHIN PORTFOLIO MANAGEMENT OF PROGRAMS.

- (a) IN GENERAL.—In order to examine the advantages and disadvantages of providing financial flexibility within the portfolio management of programs, the Secretary of Defense shall carry out a pilot program under which one execution portfolio in each military department shall be managed under a single budget line item (with respect to procurement funding) and a single program element (with respect to research, development, test, and evaluation funding) for all programs and activities of that military department included in that portfolio.
- (b) PORTFOLIO DESIGNATION.—The Secretary shall designate the portfolio for each military department to be in the pilot program under subsection (a) not later than 180 days after the date of the enactment of this Act.
- (c) BUDGET.—In each budget submitted by the President to Congress under section 1105 of title 31, United States Code, during the duration of the pilot program under this section,, amounts requested for procurement, and for research, development, test, and evaluation, for all programs and activities included in the execution portfolio of a military department designated under subsection (b) shall be set forth as a single amount, separately from other amounts requested for procurement, and for research, development, test, and evaluation, respectively, for that military department.
- (d) ASSESSMENT AND REPORT.—The Secretary of Defense shall assess the pilot program on an ongoing basis. Not later than 60 days after the end of the fifth fiscal year that begins after the pilot program is implemented under this section, the Secretary shall submit to the congressional defense committees a report providing the Secretary's findings and conclusions resulting from the pilot program, together with the Secretary's plan for any changes to be made

- 1 within the Department of Defense resulting from those findings and conclusions and such
- 2 recommendations for legislative action as the Secretary determines to be needed as a result of
- 3 those findings and conclusions.

RECOMMENDED REPORT LANGUAGE

SEC. ___. FUNDING FOR ENTERPRISE CAPABILITY PORTFOLIOS.

This section would amend Section 804 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92; 10 U.S.C. 2302 note) to add a new subsection to improve funding flexibility for the new enterprise capability portfolio structure.

The committee is aware that currently the Department of Defense's separate requirements, budget, and acquisition decision-making processes do not enable an enterprise-wide view of existing and planned capabilities across the military services and defense agencies to support timely and informed resource allocation decisions, and ensure delivery of integrated and innovative solutions to meet strategic objectives. The committee notes that establishing enterprise capability portfolios would address that concern. The committee further notes that allocating to the enterprise capability portfolio manager a portion of the defense-wide funding for rapid-response and prototyping, administered by the Under Secretary of Defense (Research and Engineering), would provide "seed" funding for innovative and agile capability initiatives or solutions that would address strategic priorities. The committee expects that the funding made available to the enterprise capability portfolio leadership by the Under Secretary would focus attention on specific innovative technologies and provide a source of funding to the military services and defense agencies to respond to priority opportunities when funding is otherwise unavailable.

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SEC. . FUNDING FOR ENTERPRISE CAPABILITY PORTFOLIOS.

- 2 Section 804 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law
- 3 114-92; 10 U.S.C. 2302 note) is amended by adding at the end the following new subsection:
- 4 "(e) Enterprise Capability Portfolio Initiatives.—Amounts available in the Fund
- 5 may be provided by the Under Secretary of Defense for Research and Engineering to an
- 6 enterprise capability portfolio manager for distribution to a defense component portfolio
- 7 included within that enterprise portfolio in order to support imminent demonstration and
- 8 prototyping of innovative and agile capability initiatives received by that component portfolio
- 9 that are applicable to capabilities in that portfolio and which support key portfolio priorities,
- 10 consistent with strategic plans.".

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