

WILLIAM M. "MAC" THORNBERRY, TEXAS, CHAIRMAN  
WALTER B. JONES, NORTH CAROLINA  
J. RANDY FORBES, VIRGINIA  
JEFF MILLER, FLORIDA  
JOE WILSON, SOUTH CAROLINA  
FRANK A. LOBIONDO, NEW JERSEY  
ROB BISHOP, UTAH  
MICHAEL R. TURNER, OHIO  
JOHN KLING, MINNESOTA  
MIKE ROGERS, ALABAMA  
TRENT FRANKS, ARIZONA  
BILL SHUSTER, PENNSYLVANIA  
K. MICHAEL CONAWAY, TEXAS  
DOUG LAMBORN, COLORADO  
ROBERT J. WITTMAN, VIRGINIA  
DUNCAN HUNTER, CALIFORNIA  
JOHN FLEMING, LOUISIANA  
MIKE COFFMAN, COLORADO  
CHRISTOPHER P. GIBSON, NEW YORK  
VICKY HARTZLER, MISSOURI  
JOSEPH J. HECK, NEVADA  
AUSTIN SCOTT, GEORGIA  
MO BROOKS, ALABAMA  
RICHARD B. NUGENT, FLORIDA  
PAUL COOK, CALIFORNIA  
JIM BRIDENSTINE, OKLAHOMA  
BRAD R. WENSTRUP, OHIO  
JACKIE WALORSKI, INDIANA  
BRADLEY BYRNE, ALABAMA  
SAM GRAVES, MISSOURI  
RYAN K. ZINKE, MONTANA  
ELISE M. STEFANIK, NEW YORK  
MARTHA McSALLY, ARIZONA  
STEPHEN KNIGHT, CALIFORNIA  
THOMAS MACARTHUR, NEW JERSEY  
STEVE RUSSELL, OKLAHOMA

ADAM SMITH, WASHINGTON, RANKING MEMBER  
LORETTA SANCHEZ, CALIFORNIA  
ROBERT A. BRADY, PENNSYLVANIA  
SUSAN A. DAVIS, CALIFORNIA  
JAMES R. LANGEVIN, RHODE ISLAND  
RICK LARSEN, WASHINGTON  
JIM COOPER, TENNESSEE  
MADELINE Z. BORDALLO, GUAM  
JOE COURTNEY, CONNECTICUT  
NIKI TSONGAS, MASSACHUSETTS  
JOHN GARAMENDI, CALIFORNIA  
HENRY C. "HANK" JOHNSON Jr., GEORGIA  
JACKIE SPEIER, CALIFORNIA  
JOAQUIN CASTRO, TEXAS  
TAMMY DUCKWORTH, ILLINOIS  
SCOTT H. PETERS, CALIFORNIA  
MARC A. VEASEY, TEXAS  
TULSI GABBARD, HAWAII  
TIMOTHY J. WALZ, MINNESOTA  
BETO O'ROURKE, TEXAS  
DONALD NORCROSS, NEW JERSEY  
RUBEN GALLEGO, ARIZONA  
MARK TAKAI, HAWAII  
GWEN GRAHAM, FLORIDA  
BRAD ASHFORD, NEBRASKA  
SETH MOULTON, MASSACHUSETTS  
PETE AGUILAR, CALIFORNIA

## COMMITTEE ON ARMED SERVICES

U.S. House of Representatives


Washington, DC 20515-6035

ONE HUNDRED FOURTEENTH CONGRESS

March 15, 2016

ROBERT L. SIMMONS, II, STAFF DIRECTOR

### MEMORANDUM FOR HASC MEMBERS

FROM: Chairman Mac Thornberry 

RE: Acquisition Reform Legislation

---

As you know, I strongly believe reforms are needed to promote agility within the Department of Defense to ensure that the military can respond to rapidly changing threats. Last year, we made a good start on acquisition reform, focusing on the acquisition workforce, requiring acquisition strategies for each program, and rebalancing the responsibilities between the Services and DOD. Today, I will introduce draft legislation that offers the next phase of defense acquisition reform.

This proposal restructures the core acquisition system, recognizing that a weapon system is exactly that – a combination of capabilities with differing technology cycles requiring different acquisition processes. The legislation pushes the Department to start new programs only with mature technologies that will be delivered on time and on-cost and then upgraded regularly as new capabilities become available. For those capabilities that are beyond the science and technology stage but still not fully developed, the bill provides new authorities for the military services to experiment and prototype. Studying military innovations of the past leads to the clear conclusion that experimentation was the heart of those successes. Coupled with open architectures and flexible funding, experimentation will allow the military to upgrade its systems more rapidly and at a lower cost.

During the course of our oversight, we have heard repeatedly that more flexibility would yield better and faster capability to the warfighter. This bill will provide that flexibility in funding, by breaking apart acquisition programs, and paving the way to fast-track successful prototypes back into programs of record. Greater flexibility, however, requires greater accountability. The legislation expands last year's delegation of acquisition management to the

military services – to hold the organizations charged with delivering capability to the warfighter accountable for their performance, rather than adding additional bureaucracy to replicate their responsibilities in case they fail. The measure enhances transparency in the acquisition process to promote true oversight. In whole, the legislation is designed to substantially improve the agility of the acquisition system and lay the groundwork for future improvements in the years to come. It is also designed to address some of the long-standing incentive challenges that underlie the major failures of an acquisition system that has remained largely unchanged for decades.

Attached please find a summary of the legislation, including potential report language. Like last year, please consider this a discussion draft. I invite your comments and suggestions leading up to the full committee markup of the Fiscal Year 2017 NDAA on April 27, 2016. I also want to work with you to include your related priorities in the NDAA, including on supporting functions such as industrial base issues, data transparency, and testing.

Finally, I want all of you who have assisted in these efforts to know how much I appreciate and value your contributions. I am also grateful to Secretary Carter, Deputy Secretary Work, Under Secretary Kendall, the Service Secretaries, and the Joint Chiefs for their willingness to work together with us to improve the acquisition process and enact broader defense reforms. Working with Ranking Member Smith, Chairman McCain, Senator Reed, and each of you, I look forward to making more progress this year.

## DRAFT OVERVIEW

In the committee report (H. Rept. 114-102) accompanying the National Defense Authorization Act for Fiscal Year 2016, the committee expressed concern that the conventional acquisition system of the Department of Defense (DOD) is not sufficiently agile to support warfighter demands. On average, major defense acquisition programs operate for 9 years before yielding new capabilities. Requirements determination, budgeting, and contracting can each take another 2 years or more before programs begin. Meanwhile, technological change has been rapidly generating new, and often unforeseeable, innovations. Global threats are evolving even more quickly, with adversaries leveraging new technologies to exploit gaps in our military capabilities. The conventional acquisition system simply does not enable capabilities to be delivered to warfighters fast enough.

The committee notes that this persistent lack of agility derives in part from the basic incentives embedded in the requirements, acquisition, budget, and oversight processes. Weapon system requirements must be set anticipating technology that will be available after years of development, so requirements are naturally optimistic. Optimism carries with it substantial technical risk, which leads the acquisition system to make short-term, cost-savings decisions that reduce flexibility and increase long-term costs. Budget timelines and oversight committees require the military services to provide detailed budget justifications, even though such details then limit the services' ability to pursue new technological innovations after funds are appropriated. Then in response to acquisition shortcomings, both Congress and DOD have imposed new layers of bureaucratic management and special authorities to circumvent the conventional acquisition process.

This legislation is intended to address these challenges and change the way capabilities are acquired. Rather than integrating as many capabilities as possible in anticipation of future technology needs, weapon system platforms should be designed to provide the capability required by the military in the short-term with flexible, open-system architectures that allow components to evolve with technologies and threats. The military services should experiment with and incrementally deploy new components, and this "component acquisition" should be unshackled from the formal and time-consuming requirements, acquisition, and budget processes. The committee recognizes that some experiments will not and should not succeed as part of the learning process. But developing and fielding new technologies are central to retaining our military advantage. Moreover, component experimentation should be integral to the standard acquisition system, rather than conducted through stand-alone programs or funding sources.

For "platform acquisition," the deliberative requirements, acquisition, and budget processes remain critical. Major platforms represent substantial investments that often remain in the arsenal for decades, so early concept development should be strengthened to ensure programs are started well. The Secretary of Defense should be responsible for establishing early cost and

fielding targets for platforms. The Chairman of the Joint Chiefs of Staff should be responsible for establishing requirements for joint warfare. The military services should then be responsible for managing acquisition programs in a transparent manner that enables adequate oversight by the Secretary, the Chairman, and Congress. Last year, Congress delegated additional acquisition decision authority to the military services; the committee envisions further delegation to the services once transparency has improved. Towards that end, the committee is clarifying the need for independent technical risk assessments and enhancing transparency of data in acquisition programs.

The committee also seeks to improve accountability for acquisition outcomes. The committee intends that the military services use component acquisition authorities to more rapidly pace technological change and threats and to mature component technologies outside of acquisition programs of record. Acquisition programs for major platforms should only include technology development that is not expected to delay deployment of the platform. If technology is not sufficiently mature, then the program should not be initiated and the technology should be matured with separate research and development funds. The services should manage programs to comply with program cost and schedule targets, as well as joint warfare requirements. In turn, the Secretary of Defense should, in the event that a program deviates from such targets and standards, make changes within the program and hold the service leadership accountable, rather than rebuilding a redundant bureaucracy to manage the program.

The committee once again commends the Department of Defense for recent efforts to improve the acquisition process but notes that reforming acquisition will be iterative and that there is more work to be done. Agility can be further enhanced by improving supporting processes, including contracting and auditing processes, speeding testing, and further supporting the acquisition workforce. The committee looks forward to continuing to work with the Department on these and other important matters.

## DRAFT SECTION-BY-SECTION DESCRIPTION

Section I would require modular and open-system architectures (MOSA) for all major defense acquisition programs (MDAPs) that reach Milestone A after October 1, 2018. The section defines and differentiates between platforms (e.g., ground vehicles, ships, or aircraft) and components (e.g., sensors or telecommunications packages). The requirements process would identify requirements that are expected to evolve during the life of a weapon system, as well as the minimum acceptable capability for such requirements upon initial operating capability. The acquisition process would then ensure that components are segregated to support incremental deployment of components to fulfill weapon system requirements. The military services would identify and coordinate open-system standards, provide related technical expertise to program offices, and ensure adequate MOSA training for acquisition personnel.

The committee notes that the Defense Acquisition Handbook states, open-system approaches “[enhance] system interoperability and the ability to integrate new capabilities without redesign of entire systems or large portions of the enterprise.” The committee believes open systems create opportunities for incremental improvements and insertion of new technologies. Since they include well-defined interfaces, open systems simplify component upgrades and reduce sustainment costs. Open systems also create a technical environment in which innovative businesses can develop and more easily introduce new capabilities.

Section II would further facilitate incremental improvements to weapon systems by providing the military services with new flexibility to experiment with, prototype, and rapidly deploy components. The legislation would authorize and the committee expects the military services to budget some advanced component prototyping funds in capability portfolios outside of specific projects or programs of record. The bill would require officials with expertise in warfighter requirements; research and development; and acquisition to establish a strategic plan for prototyping, as well as recommend specific prototype projects during the year of execution. These officials would also provide appropriate governance over the flexible authorities contained in the legislation. The bill would also provide mechanisms to speed the deployment of successful prototypes into production. The military services would be authorized to use other than competitive procedures for follow-on production of prototypes if certain circumstances are met, including that the original prototyping effort was awarded using competitive procedures. The secretaries of the military departments would also be provided special transfer authority to fund low-rate production for prototypes for up to two years to allow follow-on production to be programmed in the regular budget process. Project funding and duration of prototypes would be limited and congressional notification would be required. The committee is willing to consider revisions to these limitations in the future, as the governance and oversight structures mature.

The committee has received testimony that under current processes, developing requirements, budgeting, and contracting precludes new components from being developed within a two-year technology cycle. Funding that is flexible during the year of execution is

needed to prototype emerging technologies and to address emerging threats. Prototyping also reduces technology development risk at lower cost than integrating the same development efforts in long-term acquisition programs, since component research and development efforts can “fail” as a prototype without delaying larger platform acquisition programs. Furthermore, prototyping carries new technologies to higher readiness levels, which facilitates their insertion into platforms and helps resolve the existing “valley of death” between technology development and acquisition programs of record. It is expected that this new flexible authority will be used to “burn down” technical risk and mature technologies prior to initiation of programs of record.

Section III would strengthen up-front evaluation of the capabilities and costs of major acquisition programs, while delegating subsequent program management to the military services. The Secretary of Defense, or his designee, would assign program cost and schedule targets at the beginning of acquisition programs. Last year's delegation of program management to the services would be expanded, requiring the designation of service acquisition executives as milestone decision authorities for joint programs after October 1, 2019. Independent technical risk assessments would be performed regularly to inform tradeoffs among cost, schedule, and performance. The legislation would specify that programs that exceed their cost or schedule targets would be reviewed by the Secretary of Defense before starting manufacturing development.

The committee believes that requiring the Secretary to establish cost and schedule targets ensures that the Secretary retains a strategic role in capability investment and resource allocation. It ensures early coordination of program capabilities and costs among all key stakeholders, including the office of the Secretary, the Joint Staff, and the services. It sets parameters for service management of the program, informs requirements development, and promotes early tradeoffs between cost, schedule, and performance to reduce the likelihood of subsequent cost and schedule growth. In turn, program management by the services helps reduce redundant, overhead bureaucracy and streamlines execution of acquisition programs.

Section IV would adjust the intellectual property (IP) statute consistent with MOSA weapon designs. DOD would have unlimited right to use or disclose technical data related to component-platform interfaces, while rights for the detailed manufacturing and process data of privately-funded components would be restricted. To incentivize competition, DOD’s IP rights would be limited in two other areas. First, the bill would require DOD and contractors to negotiate for data rights when items or processes are developed with a mix of Federal and private funding, rather than setting “Government Purpose Rights” as the default. Second, “deferred ordering” of technical data by the government would be limited to five years after delivery of the last item on the contract.

The committee notes that in order for MOSA to be successful, interfaces that connect components and platforms are critical, as are their associated IP. Full interface technical data enable any company to develop a component that meets the form, fit, and function requirements

of the system. Open interfaces also allow detailed technical data that are internal to the components to remain proprietary. That is, contractors could protect the IP of their privately-funded components, or the “inner workings of the black box.” By protecting the IP contained in components and allowing for more competition among components, this bill would incentivize industry, whether or not they traditionally do business with the Department, to invest private funds in developing more innovative products for major weapon systems. The bill also incentivizes industry participation by reducing the Department’s acquisition of broad technical data to what is necessary. It restores the custom of negotiating for necessary data rights under certain circumstances and limits DOD’s right to ask for historical technical data after a contract has expired. This limitation on deferred ordering also encourages DOD to develop its sustainment strategies and plans for technical data earlier in the acquisition process.

Section V would improve transparency throughout the acquisition process. A new "acquisition scorecard" would make key program metrics (e.g., cost, schedule, and technical risk) available to oversight committees at each milestone decision point. Importantly, scorecards would include independent assessments of these key metrics to highlight areas of potential risk or deviation from program expectations. Each of these independent assessments is already conducted. Therefore, the committee intends the scorecard to avoid additional bureaucracy, excessive paperwork, or red tape. The acquisition scorecard would provide Congress, the Secretary of Defense, the Joint Staff, and service leadership with a range of views on key aspects of acquisition programs. The committee anticipates further actions to realign reporting requirements, both internal to the Department of Defense and external, to more closely follow this model of sharing existing data, rather than creating unique reports for oversight.