AMENDMENT TO RULES COMMITTEE PRINT 118-10

OFFERED BY MR. CARTER OF TEXAS

At the end of subtitle D of title II, add the following new section:

SEC. 2. ASSESSMENT AND STRATEGY FOR USE OF OPEN-ARCHITECTURE ADDITIVE MANUFACTURING FOR CERTAIN ITEMS AND COMPONENTS.

(a) ASSESSMENT.—The Secretary of Defense shall assess the capacity of the Department of Defense to test, evaluate, and use additive fabrication technology to supplement maintenance parts in support of weapon systems and associated support equipment, including obsolete parts, tools, jigs, fixtures, and other such items and components.

(b) ELEMENTS.—The assessment under subsection (a) shall include the following:

(1) Consideration of existing in-garrison and expeditionary base infrastructure and logistics support components of the Department that use existing open-architecture additive manufacturing commercial technology (commonly referred to as “3D
Printing”), related capital equipment, and associated manufacturing media.

(2) An identification of any fabrication capabilities relevant to the capacity described in subsection (a) that may be provided by public-private partnership programs, departments and agencies of the Federal Government, academic institutions, and small business concerns.

(3) An identification of the coordination, scheduling, reimbursement processes, and requirements needed for the potential use of a network of community based, private-public facilities to enable the advanced fabrication capacity described in subsection (a).

(4) An analysis of the frequency, scheduling lead time, fabrication cost, and capacity of each facility relating to the fabrication of obsolete parts, tools, jigs, fixtures or other parts as required for the Department to ensure agile combat employment.

(5) A review of contractor-owned, commercial open-architecture additive and advanced manufacturing fabrication facilities that could enhance efforts to improve reliability, availability and maintainability of legacy weapons systems, in-garrison infra-
structure, expeditionary basing, and agile combat employment.

(6) An assessment of any cost- and time-savings, as well as budgetary savings that would result from using open-architecture additive and other advanced manufacturing technologies identified in the strategy under subsection (e).

(c) STRATEGY.—

(1) REQUIREMENT.—Not later than 180 days after the date of the enactment of this Act, the Secretary of Defense shall submit to the congressional defense committees a strategy to fund and coordinate the potential use of a network of domestic, community-based, fabrication facilities for the fabrication of items and components as described in subsection (a).

(2) ELEMENTS.—The strategy under paragraph (1) shall—

(A) be based on the assessment conducted under subsection (a);

(B) identify existing commercially derived, open-architecture additive manufacturing solutions for enabling agile combat employment doctrine and point-of-need support;
(C) to the maximum extent practicable, incorporate the use of emerging small business capabilities and non-traditional partners;

(D) address how the Secretary will coordinate with other departments and agencies of the Federal Government, including the Department of Commerce and Small Business Administration, to plan for and schedule the potential use of community based facilities, as available, to improve reliability, maintainability, and availability of existing weapon and infrastructure support systems of the Department of Defense;

(E) to the extent practicable, define the situations in which the Secretary can use community-based additive manufacturing facilities—

(i) to address shortages in obsolete parts and maintenance tools;

(ii) to accelerate overall weapon system readiness levels; and

(iii) to provide supply chain relief to the Department;

(F) identify—
(i) the requirements needed to accelerate the process for creating “digital twins” of existing obsolete or diminishing parts, including critical and non-critical parts, jigs, fixtures, molds, and other such items and components;

(ii) the requirements, approval processes, and resources needed to enhance, as appropriate, the just-in-time fabrication capabilities supporting overall weapon system readiness, in coordination with the heads of relevant departments and agencies of the Federal Government;

(iii) investments that the Secretary can make to incorporate, contractor-owned, community-based fabrication capacity into the Department of Defense; and

(iv) any preferences that may be applied to community-based or private public partnerships that have used commercial capacity to supplement or support peacetime or wartime mobilizations; and

(G) address all advanced or emerging technologies that could shorten timelines and reduce costs for weapons systems logistics, mainte-
nance and readiness, including with respect to—

(i) 3D printing of non-critical parts, jigs, fixtures, tooling, molds and other relevant components;

(ii) expeditionary use and integration of open-architecture additive manufacturing to enable or support agile combat employment; and

(iii) other relevant technologies to train, equip and prepare warfighters to effectively employ additive manufacturing techniques in both garrison and expeditionary environments.