

AMENDMENT TO RULES COMMITTEE PRINT 118-

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OFFERED BY MR. CARTER OF TEXAS

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

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

4 (a) **ASSESSMENT.**—The Secretary of Defense shall
5 assess the capacity of the Department of Defense to test,
6 evaluate, and use additive fabrication technology to sup-
7 plement maintenance parts in support of weapon systems
8 and associated support equipment, including obsolete
9 parts, tools, jigs, fixtures, and other such items and com-
10 ponents.

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

13 (1) Consideration of existing in-garrison and
14 expeditionary base infrastructure and logistics sup-
15 port components of the Department that use exist-
16 ing open-architecture additive manufacturing com-
17 mercial technology (commonly referred to as “3D

1 Printing”), related capital equipment, and associated
2 manufacturing media.

3 (2) An identification of any fabrication capabili-
4 ties relevant to the capacity described in subsection
5 (a) that may be provided by public-private partner-
6 ship programs, departments and agencies of the
7 Federal Government, academic institutions, and
8 small business concerns.

9 (3) An identification of the coordination, sched-
10 uling, reimbursement processes, and requirements
11 needed for the potential use of a network of commu-
12 nity based, private-public facilities to enable the ad-
13 vanced fabrication capacity described in subsection
14 (a).

15 (4) An analysis of the frequency, scheduling
16 lead time, fabrication cost, and capacity of each fa-
17 cility relating to the fabrication of obsolete parts,
18 tools, jigs, fixtures or other parts as required for the
19 Department to ensure agile combat employment.

20 (5) A review of contractor-owned, commercial
21 open-architecture additive and advanced manufac-
22 turing fabrication facilities that could enhance ef-
23 forts to improve reliability, availability and maintain-
24 ability of legacy weapons systems, in-garrison infra-

1 structure, expeditionary basing, and agile combat
2 employment.

3 (6) An assessment of any cost- and time-sav-
4 ings, as well as budgetary savings that would result
5 from using open-architecture additive and other ad-
6 vanced manufacturing technologies identified in the
7 strategy under subsection (c).

8 (c) STRATEGY.—

9 (1) REQUIREMENT.—Not later than 180 days
10 after the date of the enactment of this Act, the Sec-
11 retary of Defense shall submit to the congressional
12 defense committees a strategy to fund and coordi-
13 nate the potential use of a network of domestic,
14 community-based, fabrication facilities for the fab-
15 rication of items and components as described in
16 subsection (a).

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

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

21 (B) identify existing commercially derived,
22 open-architecture additive manufacturing solu-
23 tions for enabling agile combat employment
24 doctrine and point-of-need support;

1 (C) to the maximum extent practicable, in-
2 corporate the use of emerging small business
3 capabilities and non-traditional partners;

4 (D) address how the Secretary will coordi-
5 nate with other departments and agencies of
6 the Federal Government, including the Depart-
7 ment of Commerce and Small Business Admin-
8 istration, to plan for and schedule the potential
9 use of community based facilities , as available,
10 to improve reliability, maintainability, and
11 availability of existing weapon and infrastruc-
12 ture support systems of the Department of De-
13 fense;

14 (E) to the extent practicable, define the
15 situations in which the Secretary can use com-
16 munity-based additive manufacturing facili-
17 ties—

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

20 (ii) to accelerate overall weapon sys-
21 tem readiness levels; and

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

24 (F) identify—

1 (i) the requirements needed to accel-
2 erate the process for creating “digital
3 twins” of existing obsolete or diminishing
4 parts, including critical and non-critical
5 parts, jigs, fixtures, molds, and other such
6 items and components;

7 (ii) the requirements, approval proc-
8 esses, and resources needed to enhance, as
9 appropriate, the just-in-time fabrication ca-
10 pabilities supporting overall weapon system
11 readiness, in coordination with the heads
12 of relevant departments and agencies of
13 the Federal Government;

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

18 (iv) any preferences that may be ap-
19 plied to community-based or private public
20 partnerships that have used commercial ca-
21 pacity to supplement or support peacetime
22 or wartime mobilizations; and

23 (G) address all advanced or emerging tech-
24 nologies that could shorten timelines and reduce
25 costs for weapons systems logistics, mainte-

1 nance and readiness, including with respect
2 to—

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

6 (ii) expeditionary use and integration
7 of open-architecture additive manufac-
8 turing to enable or support agile combat
9 employment; and

10 (iii) other relevant technologies to
11 train, equip and prepare warfighters to ef-
12 fectively employ additive manufacturing
13 techniques in both garrison and expedi-
14 tionary environments.

