

AMENDMENT TO RULES COMM. PRINT 119-33
OFFERED BY MR. MULLIN OF CALIFORNIA

In title XVI, subtitle A, add at the end the following
new section:

1 **SEC. 16 ____ . DEMONSTRATION OF RADIATION SURVIV-**
2 **ABILITY AND MODULAR SHIELDING FOR RAP-**
3 **IDLY PRODUCIBLE SPACECRAFT IN HIGH-RA-**
4 **DIATION ORBITS.**

5 (a) DEMONSTRATION REQUIRED.—The Secretary of
6 the Air Force, acting through the Air Force Research
7 Laboratory, shall carry out a program to demonstrate, on
8 orbit, the radiation survivability of rapidly producible
9 spacecraft and the effectiveness of modular, additively
10 manufactured shielding in high-radiation orbits. In car-
11 rying out the program, the Secretary shall—

12 (1) utilize Government-owned spacecraft al-
13 ready resident in the inventory of the Air Force Re-
14 search Laboratory to the maximum extent prac-
15 ticable;

16 (2) operate such spacecraft with a baseline
17 commercial configuration and additively manufac-
18 tured conformal shielding on selected avionics in a

1 sustained orbital regime of between 1,200 and 1,800
2 kilometers in altitude;

3 (3) collect comparative empirical data sufficient
4 to quantify the effectiveness of such shielding and to
5 identify practical thresholds and failure modes rel-
6 evant to mission planning; and

7 (4) ensure that the demonstration informs, and
8 does not duplicate, existing radiation-hardening and
9 resilience activities of the Department of the Air
10 Force.

11 (b) REPORT.—Not later than 180 days after the date
12 of the enactment of this Act, the Secretary of the Air
13 Force shall submit to the congressional defense commit-
14 tees a report on the plan to carry out the program re-
15 quired under subsection (a), including a description of
16 milestones, anticipated transition partners, and the re-
17 sources required within amounts authorized to be appro-
18 priated by this Act.

19 (c) NO ADDITIONAL FUNDS.—No additional funds
20 are authorized to be appropriated to carry out this section.
21 The program required under subsection (a) shall be car-
22 ried out using amounts otherwise authorized to be appro-
23 priated for Advanced Technology Development of the
24 Space Force under program element 1206616SF.

