## AMENDMENT TO H.R. 5503 OFFERED BY M\_.

Page 3, strike lines 13 through 16 (and redesignate accordingly).

Page 5, line 14, insert ", including \$350,000,000 for a second mobile launch platform and associated Space Launch System activities" after "Systems".

Page 5, line 19, strike "Experimental" and insert "Established".

Page 6, line 11, strike "\$2,150,000,000" and insert "\$1,350,000,000".

Page 6, line 14, strike "\$1,350,000,000" and insert "\$2,150,000,000".

Page 8, line 15, strike "Space Grant" and insert "National Space Grant College and Fellowship Program".

Page 9, line 21, strike "an".

Page, 9, line 23, strike "could" and insert "can".

Page 10, line 15, strike "valuable".

Page 10, after line 19, insert the following (and redesignate accordingly):

 (3) In addition to the priorities under paragraph (2), the United States has a larger and broad er need and use for further microgravity research.
 Page 12, line 3, insert "the" after "support".

Page 12, line 5, insert "on" before "surfaces".

Page 12, line 10, strike "International Space Station" and insert "ISS".

Page 13, line 7, strike "3 months" and insert "90 days".

Page 13, line 12, insert "the Administrator" before "shall make available".

Page 13, line 14, strike "LEO" and insert "Low Earth Orbit".

Page 13, after line 18, insert the following (and redesignate accordingly):

4 (1) in line with the National Space Council Pol5 icy Directive 1, as implemented by the President's
6 memo of December 11, 2017, the United States
7 should lead the return of humans to the Moon for

long-term exploration and utilization, followed by
 human missions to Mars and other destinations;

Page 13, beginning on line 23, strike "(hereinafter referred to as 'JSC')".

Page 14, line 7, strike "JSC" and insert "Johnson Space Center".

Page 14, line 12, strike "JSC" and insert "Johnson Space Center".

Page 15, line 4, strike "JSC" and insert "Johnson Space Center".

Page 15, line 11, strike "JSC" and insert "Johnson Space Center".

Page 16, strike lines 8 through 22 and insert the following:

3 (c) GAO REPORT ON METRICS FOR LOGISTICAL AND
4 TRANSPORT REDUNDANCY.—

5 (1) IN GENERAL.—Not later than 180 days 6 after the date of enactment of this Act, the Comp-7 troller General of the United States shall submit to 8 the Committee on Science, Space, and Technology of 9 the House of Representatives and the Committee on 10 Commerce, Science, and Transportation of the Sen-11 ate a report that contains an evaluation of appro4

1 priate technical benchmarks and metrics on the suit-2 ability and performance, including cost, reliability, and availability of-3 4 (A) all available crew and cargo vehicles for destinations in low-Earth orbit, cis-lunar 5 6 space, and beyond; and 7 (B) all available launch vehicles that are 8 capable of deploying more than 20 tons to low-

9 Earth orbit and beyond, to support exploration
10 and scientific missions, particularly to outer
11 planets.

(2) INCLUSION IN NASA ANALYSIS.—The Administrator shall consider the Comptroller General's
report findings on benchmarks and metrics as part
of NASA's analysis of logistical and transport redundancy.

Page 18, after line 2, insert the following (and conform the table of contents accordingly):

### 17 SEC. 206. MOBILE LAUNCH PLATFORM AND INTERIM CRYO-

18 **GENIC PROPULSION STAGE.** 

Consistent with NASA's appropriation for fiscal year20 2018, the Administrator shall pursue the following:

21 (1) The expeditious development of a new-build,
22 second Mobile Launch Platform specifically designed

1	to support the launch of Space Launch System con-
2	figurations that use the Exploration Upper Stage.
3	(2) The procurement of a second Interim Cryo-
4	genic Propulsion Stage.

Page 20, line 18, strike "to the greatest extent practicable, foster" and insert "foster, to the greatest extent practicable".

Page 23, line 1, insert "of" before "GISS".

Page 30, line 5, strike "electric".

Page 34, line 5, strike "A fundamental objective" and insert "One of the fundamental objectives".

Page 35, line 2, strike "project" and insert "Project".

Page 35, line 9, strike "project" and insert "Project from the Aeronautics account".

Page 35, beginning on line 20, strike "or through a public private partnership with a United States commercial provider".

Page 36, line 10, strike "the".

Strike sections 502, 503, and 506 of the bill (and redesignate and update the table of contents accordingly).

Page 38, after line 3, insert the following:

# 1SEC. 502. SPACE SERVICES AND IN-SPACE INFRASTRUC-2TURE.

3 (a) SENSE OF CONGRESS.—It is the sense of Congress that there exist many commercial opportunities with 4 5 a wide array of providers and partners that will allow for more effective use of taxpayer investments in the pursuit 6 7 of the long-term goals of NASA, as described in section 8 202(a) of the National Aeronautics and Space Administra-9 tion Authorization Act of 2010 (42 U.S.C. 18312(a)), including expanding permanent human presence beyond low-10 Earth orbit. 11

12 (b) REPORT.—Not later than 120 days after the date of enactment of this Act, the Administrator shall submit 13 to the Committee on Science, Space, and Technology of 14 the House of Representatives and the Committee on Com-15 16 merce, Science, and Transportation of the Senate a report describing the various commercial opportunities and op-17 tions for the procurement of in-space services or use of 18 in-space infrastructure for exploration and other NASA 19 20 missions.

Page 43, line 11, insert ", States, and local governments" after "entities".

Page 43, line 14, insert ", States, and local governments" after "entities".

Page 43, line 24, insert "the" before "Administrator".

Page 44, line 5, strike "Technologies".

Page 47, beginning on line 14, strike "the Commerce, Science, and Transportation Committee of the Senate" and insert "the Committee on Commerce, Science, and Transportation of the Senate".

Page 51, line 20, strike "by President Trump" and insert "in 2017 by the President".

At the end of the bill, add the following (and update the table of contents accordingly):

#### 1 SEC. 607. NASA LAUNCH SUPPORT AND INFRASTRUCTURE 2 **MODERNIZATION PROGRAM.**

3 (a) LAUNCH SUPPORT AND INFRASTRUCTURE MOD-ERNIZATION.—The Administrator shall continue the pro-4 5 gram established under section 305 of the National Aeronautics and Space Administration Authorization Act of 6 7 2010 (42 U.S.C. 18325) for launch support and infrastructure modernization for launch sites and ranges at 8 9 NASA facilities that support the International Space Station mission. 10

11 (b) INFRASTRUCTURE LEVERAGE OF INVEST-MENTS.—Such program should, to the greatest extent 12 13 practicable, leverage current and planned State govern-(690754|6)

1 ment infrastructure investments at NASA facilities to sup-

2 port these and other missions and use funding available

3 under this program to collaborate on relevant infrastruc-

4 ture projects.

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