

114TH CONGRESS
1ST SESSION

H. R. 1678

To require the Secretary of Defense to establish a backup for the global positioning system, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 26, 2015

Mr. GARAMENDI (for himself, Mr. HUNTER, Mr. DEFazio, and Mr. LOBIONDO) introduced the following bill; which was referred to the Committee on Armed Services

A BILL

To require the Secretary of Defense to establish a backup for the global positioning system, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “National Positioning,
5 Navigation, and Timing Resilience and Security Act of
6 2015”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

9 (1) Global Positioning System (GPS) satellite
10 signals are used by all critical infrastructure sectors

1 in the United States and are crucial to the reliable
2 and secure operation of defense systems operated by
3 the United States Armed Forces.

4 (2) Use and dependence on GPS signals in the
5 United States continues to grow.

6 (3) GPS signals are relatively weak and con-
7 sequently unable to reach many indoor environments
8 or underground installations, which limits their use
9 for first responders, law enforcement, the Armed
10 Forces, and other users.

11 (4) Due to the relative weakness of GPS sig-
12 nals, such signals can be easily corrupted, degraded,
13 or denied access to.

14 (5) There is an increasing use of inexpensive
15 and widely available GPS jammers by organized
16 crime syndicates and rogue states.

17 (6) A prolonged disruption of GPS signals
18 caused by jamming or other cyber security threats
19 would cause serious national security, intelligence,
20 and economic disruption for the United States.

21 (7) Since 2004, the Federal Government has
22 recognized that the absence of a reliable backup sys-
23 tem for GPS is a glaring economic and security
24 threat to the United States, and has reaffirmed its
25 interest in developing an enhanced long-range navi-

1 gation system (LORAN), or eLORAN, as a reliable
2 land-based backup for GPS signals.

3 (8) The establishment of a land-based posi-
4 tioning, navigation, and timing backup system to
5 complement GPS as soon as practicable is essential
6 to secure the economic and national security inter-
7 ests of the United States.

8 **SEC. 3. BACKUP GLOBAL POSITIONING SYSTEM.**

9 (a) ESTABLISHMENT.—Section 2281 of title 10,
10 United States Code, is amended by—

11 (1) redesignating subsection (d) as subsection
12 (e); and

13 (2) by inserting after subsection (c) the fol-
14 lowing new subsection:

15 “(d) LAND-BASED COMPLEMENTARY AND BACKUP
16 SYSTEM.—

17 “(1) IN GENERAL.—The Secretary of Defense,
18 in consultation with the Commandant of the Coast
19 Guard and the Secretary of Transportation, shall
20 provide for the establishment, sustainment, and op-
21 eration of a reliable land-based positioning, naviga-
22 tion, and timing system to provide a complement to
23 and backup for GPS to ensure the availability of
24 uncorrupted or non-degraded positioning, navigation,
25 and timing signals for military and civilian users if

1 GPS signals are corrupted, degraded, unreliable, or
2 otherwise unavailable.

3 “(2) REQUIREMENTS.—The system established
4 under paragraph (1) shall—

5 “(A) be wireless, terrestrial, and wide-area;

6 “(B) provide a precise, high-power 100
7 kilohertz signal;

8 “(C) be resilient and extremely difficult to
9 disrupt or degrade;

10 “(D) be able to penetrate underground and
11 inside buildings;

12 “(E) take full advantage of existing, un-
13 used government long-range navigation system
14 (commonly known as ‘LORAN’) infrastructure;

15 “(F) incorporate the expertise and con-
16 tributions of the private sector to quickly estab-
17 lish a system architecture, build, and operate a
18 land-based GPS back-up system; and

19 “(G) work in concert with and complement
20 any other similar positioning, navigation, and
21 timing systems, including enhanced long-range
22 navigation systems (commonly known as
23 ‘eLORAN’).”.

24 (b) IMPLEMENTATION DATE.—The Secretary of De-
25 fense, in consultation with the Commandant of the Coast

1 Guard and the Secretary of Transportation, shall ensure
2 that the system required under subsection (d) of section
3 2281 of title 10, United States Code, as inserted by sub-
4 section (a) of this section, is fully operational not later
5 than three years after the date of the enactment of this
6 Act.

