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## LORAN-C Infrastructure & E-LORAN

LORAN-C was a ground-based navigation system operated by the U.S. Coast Guard. In May 2009, President Obama declared the system obsolete and announced plans to terminate it.

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That year, Congress debated whether to retain and upgrade the LORAN-C infrastructure to become E-LORAN, a national backup to GPS. In October 2009, Congress enacted a DHS appropriations measure allowing LORAN-C termination. The Coast Guard began shutting it down in February 2010 ([LEARN MORE AT USCG.GOV](#) ➔).

In February 2014, the House transportation committee reopened the topic during a hearing on navigation aids ([LEARN MORE](#) ➔) and the markup of the 2014 Coast Guard act.

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## National Timing Resilience and Security Act of 2018

### LAW

On December 4, 2018, President Trump signed the Frank LoBiondo Coast Guard Authorization Act of 2018 (P.L. 115-282), which includes as Section 514 the National Timing Resilience and Security Act of 2018.

The act amends Title 49 of the U.S. Code to include the following language:

#### § 312. *Alternative timing system*

*(a) In General.—Subject to the availability of appropriations, the Secretary of Transportation shall provide for the establishment, sustainment, and operation of a land-based, resilient, and reliable alternative timing system—*

*(1) to reduce critical dependencies and provide a complement to and backup for the timing component of the Global Positioning System (referred to in this section as ‘GPS’); and*

*(2) to ensure the availability of uncorrupted and non-degraded timing signals for military and civilian users in the event that GPS timing signals are corrupted, degraded, unreliable, or otherwise unavailable.*

[View law \(PDF\)](#)

The act goes on to provide specific direction regarding: establishment of requirements; implementation plan; LORAN facilities; and agreement authority.

### Legislative History

#### BILLS

Previously, the House of Representatives incorporated the National Timing Resilience and Security Act of 2018 into its version of the National Defense Authorization Act for FY 2019 (H.R. 5515), where it appeared as Section 4514, "Backup Global Positioning System." However, that section was not included in the final defense act.

The National Timing Resilience and Security Act of 2018 incorporates elements of previous legislation, including:

- [National Timing Resilience and Security Act of 2017 \(S. 2220\)](#)
- [DHS Authorization Act \(H.R. 2825, Sec. 5411\)](#)
- [Coast Guard Authorization Act of 2017 \(H.R. 2518, Sec. 411\)](#)
- [Coast Guard and Maritime Transportation Amendments Act of 2016 \(H.R. 5978, Sec. 106\)](#)
- [Miscellaneous Maritime Transportation Amendments Act of 2016 \(H.R. 5531, Sec. 102\)](#)
- [National Positioning, Navigation, and Timing Resilience and Security Act of 2015 \(H.R. 1678\)](#)

The House Transportation and Infrastructure Committee held two hearings where the need for GPS backup was discussed:

- [June 2017 \(see 1:22:05 in video\)](#)
- [September 2016](#)

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## Coast Guard Authorization Act of 2015

### LAW

President Obama signed this act into law on February 8, 2016.

Section 610 provides guidance and authority concerning "Disposition of Infrastructure Related to E-LORAN". It repeals and replaces the previous guidance enacted in Section 229 of the Howard Coble Coast Guard and Maritime Transportation Act of 2014 ([SEE BELOW →](#)).

[View law \(PDF\)](#)

Section 610 also amends the statutory authorities of the Coast Guard Commandant codified at 14 U.S.C. § 93(a) ([VIEW TEXT AT HOUSE.GOV →](#)) to include:

*(25) enter into cooperative agreements, contracts, and other agreements with Federal entities and other public or private entities, including academic entities, to develop a positioning, navigation, and timing system to provide redundant capability in the event Global Positioning System signals are disrupted, which may consist of an enhanced LORAN system.*

Sections 524 ([VIEW TEXT →](#)) and 540 ([VIEW TEXT →](#)) also address LORAN infrastructure.

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## Howard Coble Coast Guard and Maritime Transportation Act of 2014

### LAW

President Obama signed this act into law on December 18, 2014. However, Section 229 was repealed in 2016 by the Coast Guard Authorization Act of 2015 ([SEE ABOVE →](#)).

Section 229 ("E-LORAN") provided that, "The Secretary of the department in which the Coast Guard is operating may not carry out activities related to the dismantling or disposal of infrastructure that supported the former LORAN system until the later of...."

[View law \(PDF\)](#)

The provision originated with the House transportation committee ([VIEW SOURCE, PDF →](#)).

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## Department of Homeland Security Appropriations Act, 2010

### LAW

President Obama signed this act into law on October 28, 2009.

Section 559 allows termination of LORAN-C and decommissioning of the infrastructure after:

- a. The Coast Guard Commandant certifies the termination will not adversely impact maritime safety; and
- b. The Secretary of Homeland Security certifies the LORAN-C infrastructure is not needed as a backup to GPS or to meet any other federal navigation requirement.

[View law \(PDF\)](#)

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## Coast Guard Authorization Act of 2010

President Obama signed this act into law on October 15, 2010.

### LAW

Section 219 directs the Secretary of Homeland Security to conclude a study of whether a single, domestic system is needed as a backup navigation system to GPS.

[View law \(PDF\)](#)

Earlier versions of the legislation in the House ([VIEW SOURCE, CONGRESS.GOV](#) →) and Senate ([VIEW SOURCE, CONGRESS.GOV](#) →) included specific provisions on E-LORAN, but these were dropped after passage of the law allowing LORAN-C termination.

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