

**Executive Order 13905—Strengthening National Resilience Through Responsible Use of Positioning, Navigation, and Timing Services**  
*February 12, 2020*

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

*Section 1. Purpose.* The national and economic security of the United States depends on the reliable and efficient functioning of critical infrastructure. Since the United States made the Global Positioning System available worldwide, positioning, navigation, and timing (PNT) services provided by space-based systems have become a largely invisible utility for technology and infrastructure, including the electrical power grid, communications infrastructure and mobile devices, all modes of transportation, precision agriculture, weather forecasting, and emergency response. Because of the widespread adoption of PNT services, the disruption or manipulation of these services has the potential to adversely affect the national and economic security of the United States. To strengthen national resilience, the Federal Government must foster the responsible use of PNT services by critical infrastructure owners and operators.

*Sec. 2. Definitions.* As used in this order:

(a) "PNT services" means any system, network, or capability that provides a reference to calculate or augment the calculation of longitude, latitude, altitude, or transmission of time or frequency data, or any combination thereof.

(b) "Responsible use of PNT services" means the deliberate, risk-informed use of PNT services, including their acquisition, integration, and deployment, such that disruption or manipulation of PNT services minimally affects national security, the economy, public health, and the critical functions of the Federal Government.

(c) "Critical infrastructure" means systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on national security, national economic security, national public health or safety, or on any combination of those matters.

(d) "PNT profile" means a description of the responsible use of PNT services—aligned to standards, guidelines, and sector-specific requirements—selected for a particular system to address the potential disruption or manipulation of PNT services.

(e) "Sector-Specific Agency" (SSA) is the executive department or agency that is responsible for providing institutional knowledge and specialized expertise as well as leading, facilitating, or supporting the security and resilience programs and associated activities of its designated critical infrastructure sector in the all-hazards environment. The SSAs are those identified in Presidential Policy Directive 21 of February 12, 2013 (Critical Infrastructure Security and Resilience).

*Sec. 3. Policy.* It is the policy of the United States to ensure that disruption or manipulation of PNT services does not undermine the reliable and efficient functioning of its critical infrastructure. The Federal Government must increase the Nation's awareness of the extent to which critical infrastructure depends on, or is enhanced by, PNT services, and it must ensure critical infrastructure can withstand disruption or manipulation of PNT services. To this end, the Federal Government shall engage the public and private sectors to identify and promote the responsible use of PNT services.

*Sec. 4. Implementation.* (a) Within 1 year of the date of this order, the Secretary of Commerce, in coordination with the heads of SSAs and in consultation, as appropriate, with the private sector, shall develop and make available, to at least the appropriate agencies and private sector users, PNT profiles. The PNT profiles will enable the public and private sectors to identify systems, networks, and assets dependent on PNT services; identify appropriate PNT services; detect the disruption and manipulation of PNT services; and manage the associated risks to the systems, networks, and assets dependent on PNT services. Once made available, the PNT profiles shall be reviewed every 2 years and, as necessary, updated.

(b) The Secretary of Defense, Secretary of Transportation, and Secretary of Homeland Security shall refer to the PNT profiles created pursuant to subsection (a) of this section in updates to the Federal Radionavigation Plan.

(c) Within 1 year of the date of this order, the Secretary of Homeland Security, in coordination with the heads of SSAs, shall develop a plan to test the vulnerabilities of critical infrastructure systems, networks, and assets in the event of disruption and manipulation of PNT services. The results of the tests carried out under that plan shall be used to inform updates to the PNT profiles identified in subsection (a) of this section.

(d) Within 90 days of the PNT profiles being made available, the heads of SSAs and the heads of other executive departments and agencies (agencies), as appropriate, through the Secretary of Homeland Security, shall develop contractual language for inclusion of the relevant information from the PNT profiles in the requirements for Federal contracts for products, systems, and services that integrate or utilize PNT services, with the goal of encouraging the private sector to use additional PNT services and develop new robust and secure PNT services. The heads of SSAs and the heads of other agencies, as appropriate, shall update the requirements as necessary.

(e) Within 180 days of the completion of any of the duties described in subsection (d) of this section, and consistent with applicable law and to the maximum extent practicable, the Federal Acquisition Regulatory Council, in consultation with the heads of SSAs and the heads of other agencies, as appropriate, shall incorporate the requirements developed under subsection (d) of this section into Federal contracts for products, systems, and services that integrate or use PNT services.

(f) Within 1 year of the PNT profiles being made available, and biennially thereafter, the heads of SSAs and the heads of other agencies, as appropriate, through the Secretary of Homeland Security, shall submit a report to the Assistant to the President for National Security Affairs and the Director of the Office of Science and Technology Policy (OSTP) on the extent to which the PNT profiles have been adopted in their respective agencies' acquisitions and, to the extent possible, the extent to which PNT profiles have been adopted by owners and operators of critical infrastructure.

(g) Within 180 days of the date of this order, the Secretary of Transportation, Secretary of Energy, and Secretary of Homeland Security shall each develop plans to engage with critical infrastructure owners or operators to evaluate the responsible use of PNT services. Each pilot program shall be completed within 1 year of developing the plan, and the results shall be used to inform the development of the relevant PNT profile and research and development (R&D) opportunities.

(h) Within 1 year of the date of this order, the Director of OSTP shall coordinate the development of a national plan, which shall be informed by existing initiatives, for the R&D and pilot testing of additional, robust, and secure PNT services that are not dependent on global navigation satellite systems (GNSS). The plan shall also include approaches to integrate and use

multiple PNT services to enhance the resilience of critical infrastructure. Once the plan is published, the Director of OSTP shall coordinate updates to the plan every 4 years, or as appropriate.

- (i) Within 180 days of the date of this order, the Secretary of Commerce shall make available a GNSS-independent source of Coordinated Universal Time, to support the needs of critical infrastructure owners and operators, for the public and private sectors to access.

*Sec. 5. General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

- (i) the authority granted by law to an executive department or agency, or the head thereof; or
- (ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

DONALD J. TRUMP

The White House,  
February 12, 2020.

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NOTE: This Executive order was published in the *Federal Register* on February 18.

*Categories:* Executive Orders : U.S. national resilience, strengthening efforts through positioning, navigation, and timing (PNT) services.

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