

Defense Matters

Congressional Oversight

National Defense Authorization Acts – Limitations and Reporting Requirements

Primary responsibilities of Congress include requirements to enact laws, raise and provide money for government functions and programs, oversee its proper expenditures, and provide oversight of the Executive Branch.

As I was preparing this column, Congress continues to struggle with the duty to prepare and present to the President the necessary appropriation bills to keep the Federal Government operating.

As of this drafting, it appears that the potential for a partial government shutdown, which was forecast to begin at midnight on March 1st, has been averted with two shorter-term Continuing Resolutions (CRs).

The first CR will extend the funding for Agriculture, Commerce-Justice-Science (including NASA and NOAA), Energy-Water, Interior, Military Construction-VA, and Transportation-HUD (including the FAA and its Office of Commercial Space Transportation) to March 8th.

The second CR will fund the Department of Defense (DoD), Financial Services-General Government, Homeland Security, Labor-HHS, Legislative Branch, and State-Foreign Ops until March 22nd.

With the senior leadership of the House and Senate Appropriate Committees announcing these bipartisan “deals”, they also provided a forecast that a “deal in principle” to finalize individual appropriation bills for the federal government would be finalized and enacted prior to March 22nd.

In the nearly five decades since the current Congressional budgeting and spending process was put in place, Congress has only completed appropriations measures before a fiscal year (FY) begins four times. Those were: fiscal 1977 (the first year the current system was enacted), FY1989, FY1995, and FY1997. With this pitiful on-time track record standing, one should not place much in the hope in the promise to have appropriations in place by March 22nd, noting that we are already six months into the current fiscal year.

Under the normal Congressional process, authorization bills precede appropriations bills as the authorization bills limit and direct the use of the funds, which are then appropriated. Congress has a better record of passing authorization bills each year for the DoD through the annual National Defense Authorization Act

(NDAA) process. Here again though, Congress is rarely on time in meeting the intended process with an average delay since 1977 of 42 days after the start of the fiscal year.

The NDAA for FY 2024 was passed in mid-December of 2023. Consistent with prior year NDAA's, it places requirements on the DoD to submit reports on various areas impacting the Global Positioning System (GPS) and broader initiatives focused on providing diverse positioning, navigation, and timing (PNT) capabilities for national security purposes.

A back-of-the-envelope tally of NDAA's dating back to the FY 2011 NDAA reveals that there have been over 40 different requirements placed on the DoD, and in some cases on other agencies or departments, involving limitations on the use of funds, as well as numerous requirements for status reports to the House Armed Services Committee (HASC), the Senate Armed Services Committee (SASC), or both, on a variety of GPS and other PNT related matters.

Examples of a few of these taskings includes a FY2011 NDAA limitation on the use of funds to only acquire M-code capable user equipment after FY2017, with the exception that the Secretary of Defense (SecDef) may waive the requirement if M-Code equipment is not available or if a determination is made that such equipment is not required for the particular mission or platform in question.

In the FY2014 NDAA, there was a limitation placed on the construction within U.S. territories of GNSS ground monitoring stations by “certain foreign governments.” The requirement provided for a waiver by the SecDef if it was determined that such an action was “in the vital interest of the national security of the United States” with the added stipulation that such actions “do not reduce or compete with the advantages of GPS technology for users.”

The FY2015 NDAA continued to poke



Doug Taggart
President
Overlook
Systems
Technologies, Inc.

at the issue of M-Code fielding with a requirement for providing reports to the HASC and SASC on progress being made for M-Code development with added language requiring the Air Force to provide recommendations on “how to make the program more successful in delivering M-code capability.”

This same NDAA also noted that it was the sense of the HASC that if GPS is unavailable due to malfunction or jamming, that the “committee encourages the DoD to review potential technologies to improve the military’s ability to address this challenge.” The FY15 statute also inquired about the GPS Block-III schedule, replenishment risks, and updates on the progress being made on completing the next generation GPS ground control network, OCX.

The FY2017 NDAA placed a requirement on the DoD for major defense acquisition programs to be designed with a modular open system approach (MOSA) to enhance competition and innovation to reduce costs and schedule, accommodate upgrades, and increase interoperability.

This same NDAA also assigned to the DoD Chief Information Officer (CIO) the responsibility for “policy, oversight, and guidance for matters related to precision navigation and timing...”. It is notable that during this time, the DoD PNT Enterprise strategy was being developed which itself incorporates MOSA as a central tenet. In the time since the PNT Enterprise Strategy was signed by the DoD CIO in 2018, MOSA has become the PNT Strategy cornerstone that will enable U.S. and allied military forces to achieve and maintain PNT dominance in the future electronically challenged PNT battlespace.

The FY2017 NDAA also placed prohibitions of use by the DoD of certain non-allied PNT systems, i.e., BeiDou and GLONASS. The NDAA also required that a report be provided to the HASC & SASC on the risks of using these systems, and any potential impacts of harmful interference to GPS.

In the spirit of addressing national security matters, the FY18 NDAA tasked the SecDef, the Secretary of Transportation, and the Secretary of Homeland Security to jointly develop a plan for carrying out a backup GPS capability demonstration. The authority to carry out the demonstration was provided as an 18-month window following the enactment of the NDAA on January 3, 2017. The demonstration was ultimately completed with DOT and DHS taking the lead in 2019 and early 2020, with some delays due to the pandemic, and the final report was issued in January 2021.

The FY2021 NDAA addressed a number of activities underway within the DoD and other agencies, e.g., U.S. Coast Guard, to include reports on the impact (costs) if the FCC were to approve the Ligado spectrum application, a requirement for the DoD CIO to conduct an assessment of timing variability across DoD information technology networks, and for the Commandant of the Coast Guard to submit to the House Committee on Transportation and Infrastructure a report on the training and qualifications for Coast Guard deck watch officers with a focus on basic navigation.

The FY22 NDAA made some adjustments to prior year NDAA’s based on the standup of the Space Force. Section 1604 placed additional responsibilities on the Oversight Council for the PNT Enterprise to include alternate methods to perform PNT capabilities. The NDAA also directed a briefing be prepared by the Secretary of the Air Force on a prototype program for multinational GNSS (see Defense Matters – PNT for the Warfighter (Let the DoD tend to its knitting) - Spring 2019).

Most recently, the FY2024 NDAA has two sections (1685 and 1686) that impact GPS.

Section 1685 requires the DoD to prepare quarterly briefings on the implementation of M-Code compliant receivers. The specific language tasks the co-chairs of the Council on Oversight of the DoD PNT Enterprise, to provide

a briefing on the status of the implementation of M-Code compliant GPS receivers through the Military GPS User Equipment (MGUE) program, including the status of Increments 1 and 2, and details regarding expected dates of M-Code compliance for all sea-, air, and land-based terminals across the various platforms of each of the Services. The requirement for these quarterly updates will continue until all platforms have reached full operational capacity.

Section 1686 requires the DoD to establish requirements to ensure electronic protection of military sensor, navigation, and communications systems against jamming, spoofing, and unintended interference from military systems of the United States and foreign adversaries. It tasks the SecDef to develop and approve requirements for every radar, signals intelligence, navigation, and communications system to ensure such systems and subsystems are able to withstand threat-realistic levels of jamming, spoofing, and unintended interference, including self-generated interference.

The Section places requirements to test such systems at least once every four years on test ranges that provide threat-realistic electronic warfare attacks against the systems, with the first set of highest priority systems to be tested by no later than the end of fiscal year 2025.

Clearly the almost daily reports of GPS jamming in the on-going war in Ukraine, and the Israel-Hamas conflict in Gaza, have raised awareness that PNT is a war-fighting capability that must be preserved.

For now, let’s hope that Congress is as interested in finding ways to navigate the political challenges of both authorizing and appropriating vital PNT-related funding for the departments and agencies as it is in telling the DoD how to manage its own PNT capabilities to support the warfighter. 🌟