Recommendation 22: Eliminate, or sunset within 5 years, the statutory requirement for certain acquisition-related offices and Secretary of Defense designated officials to increase flexibility and/or reduce redundancy.

Problem

Codifying the existence and structure of certain offices may unnecessarily restrict the Secretary's ability to adapt the DoD organizational structure to improve efficiency and effectiveness consistent with the intent of the FY 2017 NDAA. The subsections below provide analysis of 14 congressionally mandated, acquisition-related offices and positions.

THE REQUIREMENT FOR THE FOLLOWING STATUTORY OFFICES SHOULD BE REPEALED.

Subrecommendation 22a: Repeal the statutory requirement for Department of Defense Test Resource Management Center, 10 U.S.C. § 196.

Background

As stipulated in 10 U.S.C. § 196, "The Secretary of Defense shall establish within the Department of Defense under section 191 of this title a Department of Defense Test Resource Management Center [TRMC]….The Secretary shall designate the Center as a Department of Defense Field Activity."[1] The statute also states that there will be a director and deputy director who will "be selected by the Secretary," and be "subject to the supervision" of the USD(AT&L). The pending Section 901 reorganization affects TRMC.[2]

Congress established TRMC in statute in the FY 2003 NDAA.[3] TRMC provides oversight of proposed budgets and expenditures for the test and evaluation (T&E) facilities and resources of DoD's Major Range and Test Facility Base (MRTFB).

DoDI 5105.71 serves as TRMC's charter, and the director is DoD's senior advisor on all matters related to the adequacy of the T&E infrastructure in support of its acquisition process.[4] TRMC provides strategic guidance on a biennial basis for DoD's T&E infrastructure based on future and near-term warfighting requirements. It also annually certifies the proposed budgets and expenditures for the Military Services' and Agencies' T&E facilities and resources (to include workforce) except for the "budgets and expenditures for activities described in section 10 U.S.C. § 139(j)," which the Director of Operational Test and Evaluation (DOT&E) administers.[5]

Findings

TRMC oversees the management and operations of the Major Range and Test Facility Base (MRTFB), which the designated core set of DoD's most critical T&E infrastructure dispersed across 23 locations

[1] Department of Defense Test Resource Management Center, 10 U.S.C. § 196.
[2] Ibid.
[3] FY 2003 NDAA, Pub. L. No. 107–314, 116 Stat. 2487 (2002).
[4] Department of Defense Test Resource Management Center (TRMC), DoDD 5107.71 (2004).
[5] Director of Operational Test and Evaluation, 10 U.S.C. § 139.

and employing more than 30,000 T&E personnel. TRMC also maintains awareness of the T&E capabilities of the rest of the federal government, the private sector, and allies and partners. TRMC approves substantial modifications—including expansion, divestment, consolidation, or curtailment of activities—for all non-MRTFB T&E facilities and resources within DoD prior to implementation by the Military Services or agencies.[6] New weapons systems and technologies undergo T&E at MRTFBs and are essential to DoD's future.[7] TRMC cooperates closely with the Deputy Assistant Secretary of Defense for Developmental Test and Evaluation (DASD[DT&E]), and details personnel to that organization as supplemental workforce.[8]

DoD field activities provide, "on a DoD-wide basis, a supply or service activity common to more than one Military Department or DoD headquarters function when it is more effective, economical, or efficient to do so."[9] The Secretary of Defense maintains the authority to establish and continue a field activity. TRMC is currently the only one of the eight field activities mandated in statute.[10]

Conclusions

New weapons systems and technologies undergo T&E at MRTFBs and are essential to the future of warfighting.[11] TRMC's primary mission is to enable acquisition programs to execute successfully through adequate testing supported by the right T&E capabilities at the right time and place.[12] Congress should remove the statutory provision that established TRMC to facilitate freedom of action throughout the Section 901 reorganization of the offices of the USD(AT&L) and enhance the Secretary's authority to designate field activities.

Subrecommendation 22b: Repeal the statutory requirement for Office of Corrosion Policy and Oversight, 10 U.S.C. § 2228.

Background

In December 2002, the FY 2003 NDAA[13] amended Title 10, U.S.C., to add 10 U.S.C. § 2228, which establishes the Office of Corrosion Policy and Oversight (Corrosion Office).[14] Section 2228 states:

> *There is an Office of Corrosion Policy and Oversight within the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.*

---

[6] OUSD(AT&L), submission to 809 Panel, October 13, 2017.
[7] DoD, *Deputy Assistant Secretary of Defense for Development Test & Evaluation/Director, Test Resource Management Center*, accessed September 18, 2017, http://www.acq.osd.mil/dte-trmc/TRMC_1.html.
[8] DoD, *Developmental Test and Evaluation FY 2016 Annual Report,* accessed November 4, 2017, https://www.acq.osd.mil/dte-trmc/docs/FY2016_DTE_AnnualReport.pdf.
[9] DoD, *Agency Strategic Plan Fiscal Years 2015-2018,* accessed November 4, 2018, http://dcmo.defense.gov/Portals/47/Documents/Publications/ASP/FY2016_2018ASP.pdf.
[10] DoD, *Defense Agencies and DoD Field Activities Common Supply or Service Agency Per 10 U.S.C. §191*, accessed November 4, 2017, http://dcmo.defense.gov/Portals/47/Documents/OSD%20DAFA%20Organization.pdf.
[11] DoD, *Deputy Assistant Secretary of Defense for Development Test & Evaluation / Director, Test Resource Management Center*, accessed September 18, 2017, http://www.acq.osd.mil/dte-trmc/TRMC_1.html.
[12] OUSD(AT&L), submission to 809 Panel, October 13, 2017.
[13] FY 2003 NDAA, Pub. L. No. 107–314, § 1067 (2002).
[14] GAO, *Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects*, accessed June 9, 2017, http://www.gao.gov/assets/660/657498.pdf. Office of Corrosion Policy and Oversight, 10 U.S.C. § 2228.

> *(2) The Office shall be headed by a Director of Corrosion Policy and Oversight, who shall be assigned to such position by the Under Secretary from among civilian employees of the Department of Defense with the qualifications described in paragraph (3).*[15]

Congress mandated the Corrosion Office to bolster DoD's capacity to abate and avoid problems associated with corrosion of military equipment.[16]

Findings

Since the Corrosion Office's development in 2002, DoD has issued multiple regulations on DoD policy toward corrosion prevention and mitigation. DoDI 5000.67 closely reflects, at times verbatim, the text in 10 U.S.C. § 2228.

The House of Representatives version of the FY 2018 NDAA proposed to repeal the statutory requirement for the Corrosion Office.[17] The report of the House Armed Services Committee (HASC) to accompany the bill notes that the bill "would repeal section 2228 of title 10, United States Code, requiring that there be an Office of Corrosion Policy and Oversight within [AT&L]."[18] The final FY 2018 NDAA instead requested the Secretary of Defense provide a report "(1) evaluating the continued need for the Office of Corrosion Policy and Oversight; and (2) containing a recommendation regarding whether to retain or terminate the Office."[19] It also amends the requirements surrounding the corrosion control and prevention executive at the military departments but does not make changes to the OSD position and office.[20]

Conclusions

Congress should repeal the statutory requirement for the OSD Office of Corrosion Policy and Oversight in 10 U.S.C. § 2228.

Subrecommendation 22c: Repeal the statutory requirement for Director for Performance Assessment and Root Cause Analysis (PARCA), 10 U.S.C. § 2438.

Background

According to 10 U.S.C. § 2438, the Secretary of Defense must "designate a senior official in the Office of the Secretary of Defense as the principal official of the Department of Defense responsible for conducting and overseeing performance assessments and root cause analyses for major defense acquisition programs."[21] It further stipulates that DoD assign the director "appropriate staff and

---

[15] Office of Corrosion Policy and Oversight, 10 U.S.C. § 2228.
[16] GAO, *Defense Management: DOD Should Enhance Oversight of Equipment-Related Corrosion Projects*, *GAO-13-661*, accessed June 9, 2017, http://www.gao.gov/assets/660/657498.pdf.
[17] HASC, *Section 902 of H.R. 2810 as passed the House of Representatives on July 14, 2017*, accessed October 31, 2017, https://www.congress.gov/115/bills/hr2810/BILLS-115hr2810pcs.pdf.
[18] HASC, *Report of the Committee on H.R. 2810*, House Report 115-200, accessed November 3, 2017, https://www.congress.gov/115/crpt/hrpt200/CRPT-115hrpt200.pdf.
[19] House of Representatives, FY 2018 NDAA, *Conference Report to Accompany H.R. 2810*, accessed January 6, 2018, http://docs.house.gov/billsthisweek/20171113/HRPT-115-HR2810.pdf.
[20] Ibid.
[21] Performance Assessments and Root Cause Analyses, 10 U.S.C. §2438.

resources necessary to carry out the senior official's function under this section."[22] Congress created this position through Section 103 of the Weapons System Acquisition Reform Act of 2009 (WSARA).[23]

Findings

WSARA was a direct response to the GAO's reports that uncovered "significant delays and cost overruns" for MDAPs.[24] A 2009 GAO report showed that cost growth for MDAPs in FY 2009 had reached $296 billion and that the average "delay in delivering initial capabilities" was 22 months.[25]

WSARA defines PARCA's role as the body responsible for performance assessing MDAPs. PARCA completes these assessments semiannually to provide the USD(AT&L) with situational awareness of the portfolio.[26] The PARCA director must also uncover "the root causes of cost growth and other problems on programs that experience a critical Nunn McCurdy cost breach."[27]

In accordance with the FY 2017 NDAA two new positions—the USD(R&E) and the USD(A&S))— will replace the USD(AT&L).[28] This reorganization, set to take effect in February 2018, directly affects the PARCA office and directorship because the PARCA director currently reports to the USD(AT&L).[29]

Congress's statutory mandate for a PARCA director may limit DoD's organizational flexibility in a rapidly evolving strategic environment. The proposed restructuring of USD(AT&L) does not currently include a plan for PARCA.[30] Maintaining a statutory requirement for a PARCA director might unnecessarily preclude appropriate placement within the new organization.

Conclusions

The Section 901 report on the forthcoming reforms to USD(AT&L) postpones alignment of the PARCA office.[31] The proposed USD(A&S) organization, which contains the Assistant Secretary for Defense (Acquisition), does not include the PARCA office and its directorship. According to the report, DoD "will assess the best placement of the Program Assessment and Root Cause Analysis function within USD(A&S)."[32] Ongoing evaluation of the placement of PARCA provides the opportunity to also

---

[22] Ibid.
[23] Weapon Systems Acquisition Reform Act of 2009, Pub. L. No. 111–23 (2009).
[24] GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs, GAO-09-326SP*, accessed August 8, 2017, http://www.gao.gov/assets/290/287947.pdf. United States Senate Democrats, *S. 454, the Weapons Acquisition Reform Act of 2009*, accessed August 8, 2017, https://democrats.senate.gov/2009/05/06/s-454-the-weapons-acquisition-reform-act-of-2009/#.WYn413eGN-V.
[25] Ibid.
[26] "About PARCA," PARCA, accessed August 31, 2017, http://www.acq.osd.mil/parca/about.shtml.
[27] GAO, *Weapons Acquisition Reform: Reform Act Is Helping DOD Acquisition Programs Reduce Risk, but Implementation Challenges Remain*, *GAO-12-103*, accessed August 8, 2017, http://www.gao.gov/assets/660/650908.pdf.
[28] Under Secretary of Defense for Research and Engineering, 10 U.S.C. § 133a. Under Secretary of Defense for Acquisition and Sustainment, 10 U.S.C. § 133b.
[29] DoD, *Report to Congress Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization*, accessed August 8, 2017, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.
[30] Ibid.
[31] Ibid.
[32] Ibid.

evaluate its tasks and role. Removing the statutory provision does not remove the Secretary's authority to continue using PARCA as a conduit to understanding the progress of MDAPS.

Subrecommendation 22d: Repeal the statutory requirement for Office of Technology Transition, 10 U.S.C. § 2515.

Background

Congress established the OSD Office of Technology Transition (OTT)[33] in the FY 1993 NDAA to track research and development activities to ensure DoD integrates technology developed for national security into the private sector where applicable.[34]

The provision states that the intent is to "enhance the U.S.'s national technology and industrial base, reinvestment, and conversion activities."[35] DoD has found additional ways to meet this mandate, and the establishment of the new USD(R&E) will further fulfill the requirement. In line with Section 901 of the FY 2017 NDAA,[36] the new organization will benefit from increased flexibility by removing 10 U.S.C. § 2515.

Findings

Since enactment of this provision in 1992, 20 other technology transition offices have emerged in the Military Services and OSD.[37] OTT presumably ceased operations as a separate entity, as there is no reference to it in the Section 901 report, though the required functions of the provision have been subsumed under the USD(R&E).[38]

The definition of *technology transition* is also broader than what is encompassed in 10 U.S.C. § 2515. Technology transition incorporates, but is more than, transitioning technology to the private sector. DoDD 5000.01 includes a broad definition of technology development and transition that states it shall include

- E1.1.28.1. Address user needs;
- E1.1.28.2. Maintain a broad-based program spanning all Defense-relevant sciences and technologies to anticipate future needs and those not being pursued by civil or commercial communities;
- E1.28.3. Preserve long-range research; and

---

[33] Office of Technology Transition, 10 U.S.C. § 2515.
[34] FY 1993 NDAA, Pub. L. No. 102–484, 106 Stat. 2683 (1992).
[35] Office of Technology Transition, 10 U.S.C. § 2515.
[36] FY 2017 NDAA, Pub. L. No. 114–328 (2016).
[37] GAO, *Technology Transition Programs Support Military Users, but Opportunities Exist to Improve Measurement of Outcomes,* accessed June 13, 2017, http://www.gao.gov/assets/660/652852.pdf.
[38] DoD, *Report to Congress Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization*, accessed August 8, 2017, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.

- E1.28.4. Enable rapid, successful transition from the S&T base to useful military products.[39]

Technology transition provides "opportunities to transition technologies from the science and technology (S&T) environment to a user, such as a weapon system acquisition program or the warfighter in the field," and technology transition is not precisely defined.[40]

In 2011, Congress removed the required reporting mechanism for OTT as part of its report downsizing.[41] In a 2013 report, GAO identified the 20 technology transition programs managed by DoD and the Military Departments that provide structured mechanisms and funding to facilitate technology transition.[42] These programs target different areas of technology sharing, such as the Joint Capability Technology Demonstration, which addresses the joint warfighting needs of combatant commands and, since 2015, initiates projects in support of the four Defense Emerging and Capability Prototyping focus areas.[43] Foreign Comparative Testing looks at other countries' technologies and investigates whether they would be useful for the United States.[44]

Conclusions

To update the provision and appropriately align DoD's research focus and approach to technology transition, Congress should eliminate 10 U.S.C. § 2515. This change will provide the Secretary of Defense with maximum flexibility to meet the technology transition mission as set forth in Section 901. Removing this provision from the code will support reorganization within AT&L.

Subrecommendation 22e: Repeal the statutory requirement for Office for Foreign Defense Critical Technology Monitoring and Assessment, 10 U.S.C. § 2517.

Background

Congress established the Foreign Defense Critical Technology Monitoring and Assessment (FCTMA) office in the FY 1992 NDAA.[45] Originally, the provision for the FCTMA office was contained in 10 U.S.C. § 2525.[46] To address concerns related to foreign technology, Congress amended the statutory requirement for the FCTMA office through the FY 1993 NDAA to contain the provision in 10 U.S.C. § 2517.[47] It states, "The Secretary of Defense shall establish within the Office of the Assistant Secretary of Defense for Research and Engineering an office known as the "Office for Foreign Defense Critical Technology Monitoring and Assessment."[48]

---

[39] The Defense Acquisition System, DoDD 5000.01 (2007).
[40] GAO, *Technology Transition Programs Support Military Users, but Opportunities Exist to Improve Measurement of Outcomes, GAO-13-286,* Accessed June 13, 2017, http://www.gao.gov/assets/660/652852.pdf.
[41] FY 2012 NDAA, Pub. L. No. 112–81, 125 Stat. 1584 (2011).
[42] GAO, *Technology Transition Programs Support Military Users, but Opportunities Exist to Improve Measurement of Outcomes, GAO-13-286,* Accessed June 13, 2017, http://www.gao.gov/assets/660/652852.pdf.
[43] "Joint Capability Technology Demonstration," Department of Defense Emerging Capability and Prototyping, http://www.acq.osd.mil/ecp/PROGRAMS/JCTD.html.
[44] "Comparative Technology Office," Department of Defense Emerging Capability and Prototyping, http://www.acq.osd.mil/ecp/PROGRAMS/CTO.html.
[45] FY 1992–1993 NDAA, Pub. L. No. 102–190, 105 Stat. 1427–1431 (1991).
[46] FY 1992–1993 NDAA, Pub. L. No. 102–190, 105 Stat. 1430 (1991).
[47] FY 1993 NDAA, Pub. L. No. 102–-484, 106 Stat. 2685 (1992).
[48] Office for Foreign Defense Critical Technology Monitoring, 10 U.S.C. § 2517.

The provision assigns the task "to maintain within the Department of Defense a central library for the compilation and appropriate dissemination of unclassified and classified information and assessments regarding significant foreign activities in research, development, and applications of defense critical technologies."[49] FCTMA's task is to "perform certain liaison activities," to publicize information, and to coordinate with the Department of Commerce "in the dissemination of information and assessments regarding defense critical technologies having potential commercial uses."[50]

Findings

In 1989, GAO released a report noting that the federal government lacked a central entity for monitoring foreign dual-use (i.e., commercial and military) technology.[51] A 1990 GAO report reiterated the 1989 report, stating, "although many DOD organizations produce, collect, store, or distribute foreign science and technology information … no central DOD entity coordinates foreign technology monitoring."[52] One suggestion the GAO report cited was that DoD "should establish a focal point for coordinating foreign science and technology monitoring programs."[53] The 1990 GAO report briefly addressed the importance of being able to conduct research on foreign technology development to maintain U.S. commercial competitiveness and warfighting capabilities.[54]

The FY 1992 and 1993 NDAA markedly emphasized foreign technology monitoring and assessment.[55] The law established other provisions and programs related to foreign critical technology, including an overseas foreign critical technology monitoring and assessment financial assistance program, a critical technology application centers assistance program, and a defense dual-use critical technology partnership program.[56]

The mandate for foreign critical technology monitoring has manifested as the Militarily Critical Technologies Program (MCTP) within DoD.[57] The purpose and responsibilities of MCTP largely mirror those outlined in 10 U.S.C. § 2517.[58] A 2016 Inspector General report stated that MCTP's public database, the Military Critical Technologies List (MCTL), was out-of-date and failed to meet users'

[49] Ibid.
[50] United States Congress, *H.R.2100 – National Defense Authorization Act for Fiscal Years 1992 and 1993*, accessed July 17, 2017, https://www.congress.gov/bill/102nd-congress/house-bill/2100.
[51] GAO, *Foreign Technology: U.S. Monitoring and Dissemination of the Results of Foreign Research, GAO/NSIAD-9-117*, accessed July 17, 2017, http://www.gao.gov/assets/150/148898.pdf. GAO, "Foreign Technologies: Federal Agencies Efforts to Track Developments," accessed July 17, 2017, http://www.gao.gov/assets/220/211477.pdf.
[52] GAO, *Foreign Technology: U.S. Monitoring and Dissemination of the Results of Foreign Research, GAO/NSIAD-9-117*, accessed July 17, 2017, http://www.gao.gov/assets/150/148898.pdf.
[53] Ibid.
[54] Ibid.
[55] FY 1992–1993 NDAA, Pub. L. No. 102–190, 105 Stat. 1427–1431 (1991).
[56] Ibid.
[57] OSD, *Mission Description and Budget Item Justification,* accessed August 11, 2017, http://www.dtic.mil/descriptivesum/Y2013/OSD/stamped/0605110D8Z_6_PB_2013.pdf.
[58] Ibid.

needs.[59] Due to budget cuts, DoD stopped updating MCTL altogether and removed it from the World Wide Web.[60]

Conclusions

With the Section 901 restructuring of AT&L, the Strategic Intelligence Analysis Cell (SIAC) fulfills the same mission as the FCTMA office by providing analysis of enemy nations' capabilities and vulnerabilities.[61] SIAC would assess "potential and emerging threats and/or future opportunities that warrant action, that (sic) merit investment."[62] In light of the reorganization of AT&L, Congress should remove the statutory provision at 10 U.S.C. § 2517.

Subrecommendation 22f: Repeal the statutory requirement at 10 U.S.C. § 204 for a Small Business Ombudsman within each defense audit agency.

Background

Congress provided for the designation of a Small Business Ombudsman for defense audit agencies through the FY 2013 NDAA, establishing the position in Pub. L. No. 112–239, 126 Stat. 2064 (2013) and containing it in 10 U.S.C. § 204.[63] The statute states the Secretary of Defense "shall designate a Small Business Ombudsman within each defense audit agency," applying to both Defense Contract Audit Agency (DCAA) and the Defense Contract Management Agency (DCMA).[64]

Findings

The responsibilities of the Small Business Ombudsman include the following:

- Inform each defense audit agency director of small business problems.
- Act as eac defense audit agency's point of contact for small businesses.
- Oversee the respective defense audit agency's "conduct of audits of small businesses."
- Ensure the defense audit agency conducts small business audits and responds to small business concerns in a timely fashion.[65]

Congressional committee reports and conference reports for the FY 2013 NDAA lack further explanation of Congress' decision to create the statutory requirement for small business ombudsmen. According to DoD's former Director for the OSBP Andre Gudger, DoD supported the appointment of a

[59] Assessment of the Department of Defense Militarily Critical Technologies Program (Project No. D2015-DISPA2-0175.000), accessed September 25, 2017, http://www.dodig.mil/pubs/report_summary.cfm?id=7142.
[60] GAO, *Protecting Defense Technologies: DOD Assessment Needed to Determine Requirement for Critical Technologies List, GAO-13-157,* accessed August 11, 2017, https://www.gao.gov/assets/660/651410.pdf.
[61] DoD, *Report to Congress Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization*, accessed August 31, 2017, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.
[62] Ibid.
[63] Small Business Ombudsman for Defense Audit Agencies, 10 U.S.C. § 204. Pub. L. No. 112-239, 126 Stat. 2064.
[64] Ibid.
[65] Ibid.

Small Business Ombudsman to "reduce barriers for small businesses and [to]… strengthen the partnership between DCAA, DCMA and industry."[66] Others have informed the Section 809 Panel that ombudsman role is valuable, stating that after establishing the DCAA focal point (which has direct access to the OSBP Director) and increasing awareness at small business venues, DCAA frequently was able to address and resolve issues in a timely manner.[67]

Conclusions

Although DoD should retain the Small Business Ombudsman role, eliminating the statutory requirement at 10 U.S.C. § 204 would allow flexibility should alternative approaches be warranted. DCAA and DCMA could continue to provide the Small Business Ombudsman role without a statutory requirement. This recommendation aligns with Section 6, Small Business.

Subrecommendation 22g: Repeal the statutory requirement for Secretary of Defense to designate a competition advocate for the Defense Logistics Agency, 10 U.S.C. § 2318.

Background

Pursuant to 10 U.S.C. § 2318, Advocates for Competition, the Secretary of Defense is required to designate "an officer or employee of the Defense Logistics Agency [DLA] to serve as the advocate for competition of the agency."[68] Congress provided for this position through Section 1216 of the Department of Defense Authorization Act, 1985.[69]

Findings

In July 1984, prior to the requirement for the designation of an officer or employee to serve as the DLA competition advocate, the Competition in Contracting Act (CICA) came into effect via the Deficit Reduction Act.[70] The overarching purpose of CICA was to reduce procurement costs and encourage small business participation by promoting more competition.[71] According to GAO, CICA was a response to excessive sole-source (or noncompetitive) contract awards.[72]

41 U.S.C. § 1705, "requires the head of each executive agency to designate an employee… to serve as an advocate for competition for the agency and for each procuring activity of the agency."[73] Because DLA is not an executive agency under 41 U.S.C. § 133, the requirement to designate an advocate for competition under 41 U.S.C. § 1705 does not apply to DLA. There is an advocate for competition for

---

[66] OUSD(AT&L), *Small Business Program Works Closely with DCAA and DCMA*, accessed July 21, 2017, https://www.acq.osd.mil/osbp/docs/Small_Business_DCAA_and_DCMA_Final.pdf.
[67] Patrick Fitzgerald, Baker Tilly Virchow Krause, LLP, email to Section 809 Panel, September 26, 2017.
[68] Advocates for Competition, 10 U.S.C. § 2318.
[69] FY 1985 NDAA, Pub. L. No. 98–525, 98 Stat. 2593 (1984).
[70] Curtis Lee Coy, "The Competition in Contracting Act of 1984," (master thesis, Naval Postgraduate School, 1986), http://www.dtic.mil/dtic/tr/fulltext/u2/a171394.pdf. United States Congress, "H.R.4170 - Deficit Reduction Act of 1984," accessed August 7, 2017, https://www.congress.gov/bill/98th-congress/house-bill/4170?q=%7B%22search%22%3A%5B%22PL98-369%22%5D%7D&r=1.
[71] "The Competition in Contracting Act (CICA)," GSA Interact, accessed August 7, 2017, https://interact.gsa.gov/blog/competition-contracting-act-cica.
[72] GAO, *Procurement: Better Compliance With the Competition in Contracting Act Is Needed*, accessed August 8, 2017, http://www.gao.gov/assets/150/145671.pdf.
[73] Advocates for Competition, 41 U.S.C. § 1705.

DoD as a whole, but Congress determined that DLA should have its own advocate for competition, leading to enactment of 10 U.S.C. § 2218(a).[74]

The central function of all competition advocates is to foster full and open competition in agency procurement activities.[75] In addition to this core duty, the DLA advocate for competition must write an annual report to DLA's senior procurement executive, and recommend strategies and targets for enhancing competition.[76] 10 U.S.C. § 2218provides that the DLA advocate for competition have the same advocate for competition responsibilities and functions as provided under 41 U.S.C. § 1705.[77]

DoD produces and publishes annual competition reports via the Defense Procurement and Acquisition Policy (DPAP) office. These departmental competition reports comprise the individual competition reports from the Army, Navy, Air Force, and DLA.

DLA has its own agencywide directive (DLAD), which further establishes the DLA competition advocate role. The DLAD reiterates the requirement for a DLA competition advocate, and it reiterates the responsibilities and duties of the DLA advocate as specified in FAR Part 6.5, Advocates for Competition, and 41 U.S.C. § 1705.[78]

Conclusions

As DoD's acquisition framework continues to evolve, DoD would benefit from greater flexibility by eliminating the statutory requirement of the DLA competition advocate in 10 U.S.C. § 2318. The DLAD demonstrates DLA's commitment to promoting open competition in DLA procurements.

Subrecommendation 22h: Repeal the statutory requirement for the Hypersonics Development section of Joint Technology Office on Hypersonics, Section 218 of the FY 2007 NDAA (Pub. L. No. 109-364, 120 Stat. 2126; 10 U.S.C. § 2358 note).

Background

Section 218 of the FY 2007 NDAA, (Pub. L. No. 109–364, 120 Stat. 2126; 10 U.S.C. § 2358 note) established a Joint Technology Office on Hypersonics (JTOH) in DoD that commenced operations in FY 2007. The statute states the following:

> *The Secretary of Defense shall establish within the Office of the Secretary of Defense a joint technology office on hypersonics. The office shall carry out the program required under subsection (b), and shall have such other responsibilities relating to hypersonics as the Secretary shall specify.*[79]

---

[74] Advocates for Competition, 10 U.S.C. § 2318.
[75] Kate Manuel, CRS, *Competition in Federal Contracting: An Overview of the Legal Requirements*, accessed August 7, 2017, www.dtic.mil/get-tr-doc/pdf?AD=ADA497721.
[76] Advocates for Competition, 10 U.S.C. §2318. Advocates for Competition, 41 U.S.C. § 1705.
[77] Advocates for Competition, 41 U.S.C. § 1705.
[78] "Defense Logistics Agency Directive," DLA, accessed August 9, 2017, http://www.dla.mil/Portals/104/Documents/J7Acquisition/DLAD_Rev_5_and_PGI_PDF_Version_%207-27-16.pdf?ver=2016-07-28-074058-590.
[79] FY 2007 NDAA, Pub. L. No. 109–364, 120 Stat. 2126 (2006).

Findings

Hypersonic weapons are the latest version of precision-guided munitions. Hypersonic weapons development is the technology of "high-precision conventional weapons capable of striking a target anywhere in the world within one hour's time."[80]

Although Congress prioritized a coordinated strategic vision for hypersonic development by the mid-2000s, Russia and China were already years into their hypersonic research and development with ballistic missile-launched hypersonic weapons and hypersonic glide vehicles when Congress mandated JTOH.[81] In 2006, hypersonics programs were not integrated or coordinated internally to DoD or with the ongoing research at NASA.[82]

JTOH's purpose is to coordinate and integrate current and future research, development, tests, evaluation, and system demonstration programs on hypersonics for defense purposes.[83] Congress also requires JTOH to provide a *roadmap* for the hypersonic program, coordinated with NASA and the Joint Staff. This roadmap included mission requirements; short-, mid-, and long-term goals for the office; a schedule for meeting such goals; and test and evaluation facilities needed. DoD was to submit the roadmap to Congress every 2 years.[84] The section originally placed a sunset deadline on the reporting requirement to Congress in 2012, but later extended the deadline to 2016.[85] Despite Congress's mandate for a hypersonic roadmap biannual report, the only readily available report DoD filed was in 2008.

From the beginning, DoD has met the intent of the code, without maintaining a physical location. As stated in the 2008 roadmap document, "JTOH is designed to be a lean organization that efficiently leverages existing management structures and personnel and is operated as a virtual office." The other form of reporting to Congress was the biannual roadmaps mandated in subsection (d).

As a complementary mission, Section 1687 of the FY 2017 NDAA appointed the director of the Missile Defense Agency (MDA) to serve as the executive agent for Hypersonic Defense Capability Development.[86] The director develops architectures for hypersonic defense capability (to include detecting and intercepting threats) and establishes a program of record to develop and field a defensive system to defeat adversaries' potential hypersonic boost-glide and maneuvering ballistic missiles.[87]

In 2016, the Committee on Future Air Force Needs for Defense Against High-Speed Weapons Systems, together with the National Academy of Sciences, released an unclassified summary of *A Threat to*

---

[80] Eleni Ekmektsioglou, "Hypersonic Weapons and Escalation Control in East Asia," *Strategic Studies Quarterly*, 9, no. 2 (2015): 43-68.
[81] "*The Future of Hypersonic Weapons*," Daniel Norton, RAND Corporation, accessed June 20, 2017, https://www.rand.org/blog/2016/10/the-future-of-hypersonic-weapons.html.
[82] "Advanced Hypersonic Weapons," GlobalSecurity.org, accessed June 20, 2017, http://www.globalsecurity.org/military/systems////munitions/ahw.htm.
[83] Peter Ouzts, "The Joint Technology Office on Hypersonics" (paper, 15th AIAA International Space Planes and Hypersonic Systems and Technologies Conference), accessed June 12, 2017, https://arc.aiaa.org/doi/abs/10.2514/6.2008-2576.
[84] FY 2007 NDAA, Pub. L. No. 109–364, 120 Stat. 2126 (2006).
[85] FY 2012 NDAA, Pub. L. No. 112–81, 125 Stat. 1343 (2011).
[86] FY 2017 NDAA, Pub. L. No. 114–238, 130 Stat. 2629 (2016).
[87] Committee on Future Air Force Needs for Defense Against High-Speed Weapons Systems and Air Force Studies Board, *A Threat to America's Global Vigilance, Reach, and Power: High-speed Maneuvering Weapons*, (Washington, DC: The National Academies Press, 2016), doi: 10.17226/23667.

America's Global Vigilance, Reach, and Power: High-speed Maneuvering Weapons.[88] This report highlights the challenge of potential adversaries' growing capabilities in hypersonic weapons. The committee also raised concerns that it could "find no formal strategic operational concept or organizational sense of urgency."[89]

Section 214 of the FY 2018 NDAA changes the name of the office to Joint Hypersonics Transition Office, "with the responsibility to coordinate and integrate programs, ensure coordination of current and future programs of the Department of Defense on hypersonics, and approve demonstrations."[90]

Conclusions

Recognizing that emerging technologies are strategically important to prepare for defensive and potential adversarial use, DoD needs the freedom of action required to best address challenges associated with these technologies. The requirement to establish a JTOH as laid out in Pub. L. No. 109–364, 120 Stat. 2126 and 10 U.S.C. § 2358 note *Hypersonics Development* is not necessary for DoD's handling of this mission set and does not provide additional authorities to the Secretary of Defense. Congress should eliminate the statutory requirement in an effort to afford the Secretary flexibility to more appropriately address the mission set, but keep the language from the FY 2017 that appoints the director of MDA to serve as the executive agent for Hypersonic Defense Capability Development.

Subrecommendation 22i: Repeal the statutory requirement for Improvement in Defense Research and Procurement Liaison with Israel, Section 1006 of the FY 1989 NDAA (Pub. L. No. 100-456; 10 U.S.C. § 133 note).

Background

Section 1006 of the FY 1989 NDAA (Pub. L. No. 100-456; 10 U.S.C. § 133 note) states, "The Secretary of Defense, in consultation with the Under Secretary of Defense for Acquisition, shall designate for duty in Israel an individual or individuals to serve as the primary liaison between the procurement and research and development activities of the United States Armed Forces and those of the State of Israel."[91] Currently, the Defense Cooperation in Armaments officer located in the Office of Defense Cooperation in the U.S. embassy in Israel fulfills this role, with the primary responsibility for armaments cooperation activities and secondary responsibilities in security assistance programs.[92]

Findings

Israel is the largest recipient of American military aid, and the structures managing that relationship are longstanding and robust.[93] Section 1006 of the FY 1989 NDAA (Pub. L. No.100–456; 10 U.S.C. § 133 note) stems from a 1987 memorandum of understanding (MOU) between the presidents that institutionalized the political, military, and economic agreements negotiated in the annual aid package

---

[88] Ibid.
[89] Ibid.
[90] House of Representatives, FY 2018 NDAA, *Conference Report to Accompany H.R. 2810*, accessed January 6, 2018, http://docs.house.gov/billsthisweek/20171113/HRPT-115-HR2810.pdf.
[91] Section 1006 of the FY 1989 NDAA (Pub. L. No. 100-456; 10 U.S.C. § 133 note).
[92] OUSDP, email to Section 809 Panel, September 15, 2017.
[93] Jason Gewirtz, "Big US military aid package to Israel has strings attached," *CNBC*, September 15, 2016, https://www.cnbc.com/2016/09/15/big-us-military-aid-package-to-israel-has-strings-attached.html.

to Israel.[94] The relationship between the United States and Israel established in the MOU further addressed the principles governing cooperation in research and development, scientist and engineer exchange, and procurement and logistic support of defense equipment.[95]

The earliest MOU describes the unique military relationship between the United States and Israel, specifically regarding the Defense Procurement and Acquisition Policy (DPAP). The United States has 26 similar DPAP MOUs with nations around the world, yet no other country has a procurement liaison codified in U.S. law.[96]

Conclusions

The Defense Cooperation in Armaments officer located in the Office of Defense Cooperation fulfills the mandate of this provision. Congress should repeal the statutory provision at Pub. L. No. 10–456 and 10 U.S.C. § 133 note because it unnecessarily restricts the Secretary's authority to organize security cooperation arrangements in a manner appropriate to pursue its current acquisition-related mission and limits DoD's ability to construct a proactive and adaptive organization.

Subrecommendation 22j: Repeal the statutory requirement for Coordination of Human Systems Integration Activities Related to Acquisition Programs, Section 231 of the FY 2008 NDAA (Pub. L. No. 110-181, 10 U.S.C. § 1701 note).

Background

Section 231 of the FY 2008 NDAA (Pub. L. No. 110–181, 10 U.S.C. § 1701 note) states:

> *(a) In General.—The Secretary of Defense, acting through the Under Secretary of Defense for Acquisition, Technology, and Logistics, shall coordinate and manage human systems integration activities throughout the acquisition programs of the Department of Defense.*
>
> *(b) Administration.—In carrying out subsection (a), the Secretary shall designate a senior official to be responsible for the effort.*[97]

The statute further stipulates this official hold responsibility for coordinating the planning, management, and execution of human systems integration (HSI) activities and for recommending resource requirements.[98] The Office of the Secretary of Defense Acquisitions Technology and Logistics (OSD(AT&L)) leads these efforts in the Office of the Director Defense Research and Engineering

[94] Timothy McNulty, "Strife strains special U.S.-Israeli kinship," *Chicago Tribune,* April 25, 1988, accessed November 27, 2017, http://articles.chicagotribune.com/1988-04-25/news/8803110673_1_american-jews-israel-jewish-state.
[95] The Memorandum of Understanding Between the Government of the United States of America and the Government of Israel Concerning the Principles Governing Mutual Cooperation in Research and Development, Scientist and Engineer Exchange, Procurement and Logistic Support of Defense Equipment of December 14, 1987 can be viewed in DoD, *Amendment 1 to the Memorandum of Understanding Between the Government of the United States of America and the Government of Israel*, accessed November 27, 2017, https://www.acq.osd.mil/dpap/Docs/mou-israel.pdf.
[96] DoD, *Amendment 1 to the Memorandum of Understanding Between the Government of the United States of America and the Government of Israel*, accessed November 27, 2017, https://www.acq.osd.mil/dpap/Docs/mou-israel.pdf.
[97] Section 231 of FY 2008 NDAA, Pub. L. No. 110–181, 10 U.S.C. § 1701 note.
[98] Ibid.

(DDR&E) through the directors for Mission Assurance and Human Performance, Training, and Biosystems.[99]

Findings

HSI includes humans in their different roles in the system (e.g., operator, maintainer, trainer, designer); systems, including hardware, software, and processes (including the acquisition process and the design process); and integration of these elements to optimize the performance and safety of the whole.[100] DDR&E's FY *2011 Department of Defense Human Systems Integration Management Plan*, states:

> *Systems, composed of hardware and software, enable the ability of humans to perform tasks that successfully project combat power in difficult and lethal environments. High levels of human effectiveness are typically required for a system to achieve its desired effectiveness. The synergistic interaction between the human and the system is key to attaining improvements total system performance and minimizing total ownership costs.*[101]

Unmanned aerial systems (UASs) serve as one example within DoD. The National Research Council presented the following in its 2007 report *Human-System Integration in the System Development Process: A New Look:*

> *UASs are airplanes or helicopters operated remotely by humans on the ground or in some cases from a moving air, ground, or water vehicle. Until recently the term 'unmanned aerial vehicle' (UAV) was used in the military services in reference to such vehicles as Predators, Global Hawks, Pioneers, Hunters, and Shadows. The term 'unmanned aerial system' acknowledges the fact that the focus is on much more than a vehicle. The vehicle is only part of a large interconnected system that connects other humans and machines on the ground and in the air to carry out tasks ranging from UAS maintenance and operation to data interpretation and sensor operation.*[102]

Prior to the inclusion of HSI in the FY 2008 NDAA, both the Army and the Navy had active HSI programs. The Air Force was planning to establish similar programs but without coordination with the other military branches. The Army's program, commonly known as MANPRINT (Manpower and Personnel Integration), has been operating since 1986. The Navy's system, commonly known as SEAPRINT (Systems Engineering, Acquisition, and Personnel Integration) was formalized in 2003 to establish a MANPRINT-like approach to Navy system design and acquisition.[103] The Military Services had control over all decisions related to development, fielding, staffing, and operation of their new

---

[99] DoD, FY *2011 Department of Defense Human Systems Integration Management Plan*, accessed November 8, 2017, https://www.acq.osd.mil/se/docs/FY11-DoD-HSI-Management-Plan-101213.pdf.
[100] "Human Systems Integration," ACQuipedia, accessed August 3, 2017, https://dap.dau.mil/acquipedia/Pages/ArticleDetails.aspx?aid=4d39f620-2f41-4522-a1b0-64958c8aa0eb.
[101] DoD, FY *2011 Department of Defense Human Systems Integration Management Plan*, accessed November 8, 2017, https://www.acq.osd.mil/se/docs/FY11-DoD-HSI-Management-Plan-101213.pdf.
[102] Richard W. Pew and Anne S. Mavor, *Human-System Integration in the System Development Process: A New Look*, (Washington, D.C. National Academies Press, 2007), accessed November 27, 2017, https://www.nap.edu/read/11893/chapter/3#18.
[103] Department of the Army, *Army FY09 Human Systems Integration Plan,* accessed August 10, 2017, http://www.acq.osd.mil/se/docs/Army-FY09-HSI-Plan.pdf. Jennifer McGovern Narkevicius, *An Integrated Process for Incorporating Human Models into Systems Engineering*, accessed August 10, 2017, http://cc.ist.psu.edu/BRIMS/archives/2005/other/05-BRIMS-086.pdf.

systems.[104] The Navy and Air Force closely followed the Army's blueprint for HSI programs; there was no formalized coordination among the branches.

In the FY 2008 NDAA, Congress directed the OSD(AT&L) to develop a comprehensive plan for HSI.[105] The Office of the Deputy Under Secretary of Defense (Acquisition and Technology) and the Director of Biological Systems within the Office of the Deputy Under Secretary of Defense (Science and Technology) jointly submitted the first HSI report to Congress in March 2009. The DoD HSI Management Plan defines how HSI is administered within DoD and serves as the blueprint for future activities.[106]

The Human Systems Community of Interest—led by a steering group of six DoD officials representing all Military Services and OSD—created the recent *Human Systems Roadmap for 2016*. The purpose of the roadmap is to "develop and deliver new human-centered technologies to quantify mission effectiveness and to select, train, design, protect, and operate for measurably improved mission effectiveness."[107] The roadmap provides a path forward for the future of HSI through 2022. The strategies described include advancing HSI throughout DoD to exploit social data to understand human aspects of military environments and developing strategies for critical stressor mitigation to ensure warfighter safety and survivability.

Conclusions

As HSI continues to develop new technologies and systems for DoD, the senior official leading HSI may need more flexibility within the role to address future concerns. The statute grants no additional authority to a senior official. Removing Section 231 of the FY 2008 NDAA (Pub. L. No. 110–181 and 10 U.S.C. § 1701 note) will facilitate freedom of action throughout the Section 901 reorganization of t OUSD(AT&L) and enhance the Secretary's authority. This change would not eliminate the role, but eliminate parts of the code that may inhibit flexibility.

Subrecommendation 22k: Repeal the statutory requirement for Focus on Urgent Operational Needs and Rapid Acquisition, Section 902 of the FY 2013 NDAA (Pub. L. No. 112-239; 10 U.S.C. § 2302 note).

Background

Congress created a position for a senior official for urgent operational needs and rapid acquisition through Section 902 of the FY 2013 NDAA (Pub. L. No. 112–239; 10 U.S.C. § 2302 note).[108] It states:

> *Designation of Senior Official Responsible for Focus on Urgent Operational Needs and Rapid Acquisition.*

[104] Richard W. Pew and Anne S. Mavor, *Human-System Integration in the System Development Process: A New Look*, (Washington, D.C. National Academies Press, 2007), accessed November 27, 2017, https://www.nap.edu/read/11893/chapter/3#18.
[105] FY 2009 NDAA, Pub. L. No. 110–181, 122 Stat. 45 (2008).
[106] "INITIATIVES: Human Systems Integration," Office of the Deputy Assistant Secretary of Defense: Systems Engineering, accessed July 27, 2017, http://www.acq.osd.mil/se/initiatives/init_hsi.html.
[107] DUSD (S&T), *Human Systems Roadmap Review*, accessed July 27, 2017, http://www.dtic.mil/ndia/2016/Human/S&TPanel.pdf.
[108] Section 902 of the FY 2013 NDAA, Pub. L. No. 112–239; 10 U.S.C. § 2302 note.

> *(1) In general.-The Secretary of Defense, after consultation with the Secretaries of the military departments, shall designate a senior official in the Office of the Secretary of Defense as the principal official of the Department of Defense responsible for leading the Department's actions on urgent operational needs and rapid acquisition, in accordance with this section.*[109]

The senior official's responsibilities include advocating for issues and funding related to rapid response to the military's operational needs. The senior official is also responsible for enhancing transparency concerning DoD's operational needs. Finally, the senior official tracks the state of, and ensures rapid responses to, DoD's most pressing technical or capability deficits, reporting directly to the Secretary of Defense.[110]

Findings

A 2011 GAO report noted that U.S. "forces in Iraq and Afghanistan have faced significant risks of mission failure and loss of life due to rapidly changing enemy threats."[111] DoD had made multiple attempts to quickly develop and field new technology for countering emerging and evolving threats in theater; however, GAO found that at least 31 discrete offices and entities within DoD were responsible for responding to urgent operational needs and rapid acquisition. According to the report, these efforts appeared fragmented and potentially resulted in redundancies. GAO recommended DoD designate "a focal point to lead urgent needs efforts."[112]

In the FY 2013 NDAA conference report, members of Congress cited the GAO report as a primary motive for creating a statutory mandate for a senior official for urgent operational needs and rapid acquisition. The committee wrote it was concerned about the existence of "multiple funding streams, lack of coordination, and the need for consolidation as well as improved oversight" and contended that designating a senior-level focal point was a necessary step in mitigating this issue.[113]

There is a director of the Joint Rapid Acquisition Cell (JRAC) within USD(AT&L). The Director and the Cell exist to "provide a single point of contact in the OSD for tracking the timeliness of immediate war-fighter need actions for the senior leadership and facilitating coordination with other government agencies."[114] The role of senior official for urgent operational needs and rapid acquisition may align with the purview of this office.

Conclusions

Although Section 902 of the FY 2013 NDAA (Pub. L. 112–239; 10 U.S.C. § 2302 note) does not specify who the senior official reports to, the JRAC, in accordance with DoDD 5000.71, falls under the operational control of the Deputy Secretary of Defense and the administrative control of USD(AT&L). The 2017 NDAA reorganized the USD(AT&L), into two new positions: the USD(R&E) and the

---

[109] Ibid.
[110] Ibid.
[111] GAO, *Warfighter Support: DOD's Urgent Needs Processes Need a More Comprehensive Approach and Evaluation for Potential Consolidation, GAO-11-273*, accessed July 20, 2017, http://www.gao.gov/assets/320/316068.pdf.
[112] Ibid.
[113] H.R. Rep. No. 112-705 (2017) (Conf. Rep. to accompany H.R. 4310).
[114] "AT&L Offices," OSD, accessed August 11, 2017, http://www.acq.osd.mil/atlOffices.html.

USD(A&S).[115] The Section 901 report aligns the JRAC with the USD(A&S) for administrative control. Repealing the statutory requirement will afford DoD the flexibility to forge a new and bold path toward achieving "technological superiority, affordable systems, and well managed business operations."[116]

Subrecommendation 22l: Repeal the statutory requirement for Senior Official for Dual-Use Science and Technology Projects, Section 203(c) of the FY 1998 NDAA (Pub. L. No. 105-85; 10 U.S.C. § 2511 note).

Background

Section 203(c) of the FY 1998 NDAA (Pub. L. No. 105–85; 10 U.S.C. § 2511 note) requires the Secretary of Defense to designate "a senior official in the Office of the Secretary of Defense to carry out responsibilities for dual-use projects under this subsection."[117] The subsection refers to the defense dual-use critical technology program. The pending Section 901 reorganization affects this senior official, who must report to the USD(AT&L).[118]

The primary responsibility of the senior official for dual-use programs is to supervise "the establishment of, and adherence to, procedures for ensuring that dual-use projects are initiated and administered effectively."[119] The senior official also ensures the military adopts "commercial technologies" as appropriate.[120] Finally, the senior official coordinates the military departments' and defense agencies' dual-use efforts "to avoid unnecessary duplication."[121]

Findings

According to the Senate Armed Services Committee (SASC) report for the FY 1998 NDAA, one of the primary motives for creating the dual-use programs senior official position was to help DoD better facilitate upcoming changes to dual-use funding. The changes included terminating DoD-wide funding by FY 1999 for dual-use technology projects, and requiring the Military Services to fund dual-use programs through their respective science and technology programs, rather than through the OSD. According to the SASC report, this change left DoD at a "critical turning point" in which DoD needed to devise a more "specific process to ensure that such a transition will take place, despite the Military Services' resistance to dual-use technology development."[122]

Section 203(c) of the FY 1998 NDAA further stipulates that this individual ensure dual-use projects are consistent with the joint warfighting science and technology plan referred to in section 270 of the FY 1997 NDAA (Public Law 104–201; 10 U.S.C. § 2501 note). This document was released in 1998, and

---

[115] Under Secretary of Defense for Research and Engineering, 10 U.S.C. § 133a. Under Secretary of Defense for Acquisition and Sustainment, 10 U.S.C. § 133b.
[116] DoD, *Report to Congress Restructuring the Department of Defense Acquisition, Technology and Logistics Organization and Chief Management Officer Organization*, accessed August 8, 2017, https://www.defense.gov/Portals/1/Documents/pubs/Section-901-FY-2017-NDAA-Report.pdf.
[117] Section 203(c) of the FY 1998 NDAA, Pub. L. No. 105–85; 10 U.S.C. § 2511 note.
[118] Ibid.
[119] Ibid.
[120] Ibid.
[121] Ibid.
[122] Senate Armed Services Committee, NDAA for FY 1998 Report.

appears to have been supplanted in practice by documents such as *A 21st Century Science, Technology, and Innovation Strategy for America's National Security*.

The dual-use science and technology programs support research and development for those technologies with dual-use applications.[123] In establishing these programs, the government laid out two goals:

- Partnering with industry to jointly fund the development of dual-use technologies needed to maintain the DoD's technological superiority on the battlefield and industry's competitiveness in the marketplace.
- Making the dual-use development of technologies with industry a normal way of doing business in the services.[124]

These programs appear to be the evolution of the Clinton-era Technology Reinvestment Project (TRP), one in a series of programs sponsored by DoD to increase engagement with industry on dual-use technologies.[125] DoD continues to consider appropriate models for this kind of engagement with industry to include today's iterations like DIUx, SOFWERX, and AFwerX. In the intervening years, DoD has established policies and processes to address the challenges related to dual-use technology. DoDI 2040.02 establishes the department's policy and assigns responsibility for the international transfer of dual-use and defense-related technology, articles, and services.[126]

Conclusions

DoD has found ways to meet the intent of this provision for a Secretary of Defense designated official since 1998. The provision appears outdated and repealing it would allow DoD to organize appropriately to the challenge of dual-use technologies and supporting these dual-use science and technology programs, particularly during the Section 901 reorganization. Congress should eliminate the statutory requirement for a dual-use programs official contained in Section 203(c) of the FY 1998 NDAA (Pub. L. No. 105–85; 10 U.S.C. § 2511 note).

Subrecommendation 22m: Repeal the statutory requirement for Executive Agent for Printed Circuit Boards, Section 256 of FY 2009 NDAA (Pub. L. No. 110-417; 10 U.S.C. § 2501 note).

Background

Congress directed establishment of the executive agent (EA) for printed circuit boards (PrCBs) in Section 256 of the FY 2009 NDAA, which states, "Not later than 90 days after the date of the enactment

[123] Defense Dual-Use Critical Technology Program, 10.U.S.C. § 2511.
[124] DoD, *A Manager's Guide to Technology Transition In an Evolutionary Acquisition Environment: A Contact Sport, Workshop Draft, 2002,* accessed November 9, 2017, http://www.acq.osd.mil/dpap/Docs/RandD%20Text.doc.
[125] Jay Stowsky, "The Dual-Use Dilemma," *Issues in Science and Technology,* Volume XIII Issue 2, Winter 1997, accessed November 29, 2017, http://issues.org/13-2/stowsky/.
[126] International Transfers of Technology, Articles, and Services, DoDI 2040.02 (2014).

of this Act, the Secretary of Defense shall designate a senior official of the Department of Defense to act as the EA for printed circuit board technology."[127]

The EA's primary duties include ensuring DoD has access to manufacturing capabilities and technical expertise necessary to meet future military requirements regarding PrCBs and overseeing the supply chain. The agent assesses the vulnerabilities, trustworthiness, and diversity of the PrCB supply chain. Section (c) ensures that the Military Departments, Defense Agencies, and other Components of DoD provide the EA with the appropriate support and resources needed to perform the assigned roles, responsibilities, and authorities of the EA.[128]

DoDD 5101.18E, Executive Agent for Printed Circuit Board and Interconnect Technology, affirms the position of an EA for PrCB and interconnect technology.[129] It designates USD(AT&L) as the principal staff assistant for PrCB and interconnect technology to oversee the DoD EA for PrCB and Interconnect Technology.[130] DoD has directed the Naval Sea Systems Command to the EA role through its Crane Division.[131]

Findings

PrCBs connect a variety of active components (e.g., microchips and transistors) and passive components (e.g., capacitors and fuses) into electronic assemblies that control systems.[132] Virtually every electronic device in the marketplace, from military programs to commercial products, uses PrCBs.

In a 2005 report on the industry titled *Linkages: Manufacturing Trends in Electronics Interconnect Technology*, the National Research Council found that U.S. production of PrCBs had fallen below 10 percent of world output (down from 40 percent or more in the 1980s).[133] Although the Buy-American Act would not necessarily prevent DoD from buying PrCBs from foreign countries, suitable domestic supplies of the technology are limited.[134]

William Landay testified in a congressional hearing leading up to the FY 2009 NDAA that the Militarily Critical Technologies Program addresses PrCBs protection.[135] Anthony Tether of the Defense Advanced Research Projects Agency also asserted that DoD had begun a new "TRUST in Integrated Circuits" program in 2007.[136] The goal of the latter program has been to ensure the trustworthiness of PrCBs

---

[127] FY 2009 NDAA, Pub. L. No. 110–417, 122 Stat. 4404 (2008).
[128] Ibid.
[129] DoD Executive Agent for Printed Circuit Board and Interconnect Technology, DoDI 5101.18E (2016).
[130] Ibid.
[131] Naval Sea Systems Command *Warfare Centers: NSWC Crane Division*, accessed July 25, 2017, http://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Crane/What-We-Do/Technical-Capabilities/Advanced-Electronics-Energy-Systems/.
[132] The National Academies of Science Engineering and Medicine, *Linkages: Manufacturing Trends in Electronics Interconnection Technology*, accessed July 24, 2017, https://www.nap.edu/read/11515/chapter/1.
[133] Ibid.
[134] Ibid.
[135] William Landay and Anthony Tether, *Hearing on National Defense Authorization Act for Fiscal Year 2009*, Washington, DC, March 13, 2008.
[136] Ibid.

regardless of where they are designed or manufactured. DoD coordinates the two programs, but administers them under the two separate umbrella organization.

As personal electronic devices become more common, American companies have abandoned the PrCBs marketplace.[137] Lower labor costs allow Asian companies to mass produce less expensive PrCBs compared to American companies that focused on low-quantity complex PrCBs.[138] A decrease in PrCB production within the United States has created a supply chain dilemma. DoD has lacked an adequate network of trustworthy suppliers for the crucial technology while it has invested less in its own R&D over the past 2 decades.[139]

Since the Naval Systems Warfare Center (NSWC) became the EA responsible for PrCBs, it has worked in conjunction with IPC (Association Connecting Electronics Industries) to address PrCB concerns. In a 2016 report, IPC recommended that DoD expand its role in fostering new PrCB design and manufacturing technology, as well as developing explicit mechanisms to integrate emerging commercial PrCB technologies into new defense systems.[140] Because of the recent incorporation of the EA into NSWC, the effectiveness of these recommendations in action has not yet been determined.

The purpose of assigning an executive agent is to meet a need when no other means to meet it exists, when DoD resources need to be focused on a specific area or areas of responsibility to minimize duplication or redundancy, or when law requires.[141]

Conclusions

Designating a senior official to serve as executive agent limits the Secretary's flexibility and is overly prescriptive. Removing the statutory provision designating an executive agent will facilitate freedom of action throughout the Section 901 reorganization of OUSD(AT&L) and enhance the Secretary's authority.

THE REQUIREMENT FOR THE FOLLOWING STATUTORY OFFICE SHOULD BE SUNSET.

Subrecommendation 22n: Sunset the statutory requirement for Joint Directed Energy Transition Office (JDETO), 10 U.S.C. § 219 (10 U.S.C. § 2431 note) in FY 2023.

Background

In the 2017 NDAA, Congress mandated the "Secretary of Defense shall designate a senior official already serving within the Department of Defense as the official with principal responsibility for the development and demonstration of directed energy weapons for the Department."[142]

---

[137] Lucintel, *Growth Opportunities in the Global Printed Circuit Board Market*, accessed July 25, 2017, http://www.reportlinker.com/p04804598/Growth-Opportunities-in-the-Global-Printed-Circuit-Board-Market.html.
[138] Joseph Ladou, "Printed Circuit Board Industry," *International Journal of Hygiene & Environmental Health*, (2006).
[139] William Landay and Anthony Tether, *Hearing on National Defense Authorization Act for Fiscal Year 2009*, Washington, DC, March 13, 2008.
[140] David Bergman, *NSWC Crane Microelectronics Integrity Meeting*, Association Connecting Electronics Industries.
[141] DoD Executive Agent, DoDD 5101.1 (2003).
[142] FY 2017 NDAA, Pub. L. No. 114–328, 130 Stat. 2054 (2016).

Congress also redesignated the High Energy Laser Joint Technology Office (HEL-JTO) as the Joint Directed Energy Transition Office (JDETO) in the FY 2017 NDAA.[143] The provision stipulates, "The High Energy Laser Joint Technology Office of the Department of Defense is hereby re-designated as the 'Joint Directed Energy Transition Office'…and shall report to the official designated under subsection (a)(1)."[144] The FY 2018 NDAA stipulates that the USD(R&E) will be designated in this role.[145]

Through the FY 2000 NDAA, Congress called on the DoD to assemble a master plan for laser weapons development.[146] The resulting High Energy Laser Executive Review Panel issued a report in March 2000 titled, the D*epartment of Defense Laser Master Plan*. The review panel's plan recommended DoD "implement a new management structure for HEL technologies."[147] Congress accepted the HEL Panel's recommendations in the FY 2001 NDAA, and DoD established HEL-JTO in June 2000 to implement the master plan.[148]

Findings

There was a marked emphasis on laser technology in the FY 2000 NDAA. In addition to mandating DoD devise a master plan for laser technology, it also called for a space-based laser program and discussed "criteria for progression of airborne laser program[s]."[149] The emphasis on directed energy weapons in the FY 2000 NDAA may have stemmed from preceding laser weapons research and development efforts, including the Strategic Defense Initiative of the 1980s.[150]

The recommendation to redesignate the HEL-JTO as the JDETO originally appeared in the Directed Energy Weapon Systems Acquisition Act of 2016.[151] The body of the Act appears in the FY 2017 NDAA and in 10 U.S.C. § 2431 note.[152] Part (a) of the note mandates the Secretary of Defense select a senior official to lead JDETO.[153]

Inadequate directed energy weapons acquisitions precipitated HEL-JTO's redesignation and appointment of a senior official. According to a Senate committee report for the FY 2016 NDAA, members of Congress expressed concern over the fact that although DoD has invested more than $6 billion in directed energy technology since 1960, DoD's "directed energy initiatives [have not been] resourced at levels necessary to transition them to full-scale acquisition programs."[154] The conference report for the FY 2017 NDAA further explained that the purpose of HEL-JTO's redesignation and the

---

[143] Ibid.
[144] Ibid.
[145] House of Representatives, FY 2018 NDAA, *Conference Report to Accompany H.R. 2810*, accessed January 6, 2018, http://docs.house.gov/billsthisweek/20171113/HRPT-115-HR2810.pdf.
[146] FY 2000 NDAA, Pub. L. No. 106–65, 113 Stat. 554 (1999).
[147] High Energy Laser Executive Review Panel, *Department of Defense Laser Master Plan,* accessed June 29, 2017, http://www.wslfweb.org/docs/MasterLaserPlan.pdf.
[148] GPO, *Department of Defense Initiatives on High Energy Lasers Have Been Responsive to Congressional Direction*, accessed June 29, 2017, https://www.gpo.gov/fdsys/pkg/GAOREPORTS-GAO-05-545R/html/GAOREPORTS-GAO-05-545R.htm.
[149] FY 2000 NDAA, Pub. L. No. 106–65, 113 Stat. 540 (1999).
[150] Don D. Seeley and John M. Slater, "High Energy Laser Joint Technology Office: A Mission Overview" (paper, Optical Science and Technology, the SPIE 49th Annual Meeting, Denver, CO, October 18, 2004).
[151] Directed Energy Weapon Systems Acquisition Act of 2016, S.R. 2778, 114th Cong. (2016).
[152] FY 2017 NDAA, Pub. L. No. 114–328, 130 Stat. 2054 (2016).
[153] Weapons Development and Procurement Schedules, 10 U.S.C. §2431, notes (a) and (b).
[154] SACS, *National Defense Authorization Act for Fiscal Year 2017*, S. Rep. 114-255 (2016) (Committee Rep.).

statutory requirement for a senior official to lead the JDETO is to give the Secretary of Defense "rapid acquisition authority" toward "speed[ing] the development and deployment of operational directed energy capabilities."[155]

Conclusions

It is unlikely that removing the statutory requirement for JDETO would curtail DoD's renewed directed energy efforts, yet Congress only recently reestablished JDETO for FY 2017. Because reestablishment of JDETO was so recent, and in an effort to provide future flexibility should the nature of the requirement for this designated official shift, Congress should amend the clause to sunset in 5 years (2023). Such action should both fulfill congressional direction to focus on research and development and provide flexibility in the future to appropriately align DoD's research focus as it evolves. Section 215 of the FY 2018 NDAA adds a new prototyping and demonstration program to Section 219 as a new subsection (c). The Section 809 Panel had not evaluated that new program, and the recommendation for a sunset provision for Section 219 does not encompass the new subsection (c). Congress, in reviewing the recommendations to sunset the other portions of Section 219, should include a sunset provision for the new subsection (c).

Implementation

Legislative Branch

- Repeal the statutory requirement for Department of Defense Test Resource Management Center, 10 U.S.C. § 196.
- Repeal the statutory requirement for Office of Corrosion Policy and Oversight, 10 U.S.C. § 2228.
- Repeal the statutory requirement for Director for Performance Assessment and Root Cause Analysis (PARCA), 10 U.S.C. § 2438.
- Repeal the statutory requirement for Office of Technology Transition, 10 U.S.C. § 2515.
- Repeal the statutory requirement for Office for Foreign Defense Critical Technology Monitoring and Assessment, 10 U.S.C. § 2517.
- Repeal the statutory requirement at 10 U.S.C. § 204 for a Small Business Ombudsman within each defense audit agency.
- Repeal the statutory requirement for Secretary of Defense to designate a competition advocate for the Defense Logistics Agency, 10 U.S.C. § 2318.
- Repeal the statutory requirement for the Hypersonics Development section of Joint Technology Office on Hypersonics, Section 218 of the FY 2007 NDAA (Pub. L. No. 109–364, 120 Stat. 2126; 10 U.S.C. § 2358 note).
- Repeal the statutory requirement for Improvement in Defense Research and Procurement Liaison with Israel, Section 1006 of the FY 1989 NDAA (Pub. L. No. 100–456; 10 U.S.C. § 133 note).
- Repeal the statutory requirement for Coordination of Human Systems Integration Activities Related to Acquisition Programs, Section 231 of the FY 2008 NDAA (Pub. L. No.110–181, 10 U.S.C. § 1701 note).

[155] House of Representatives, FY 2018 NDAA, *Conference Report to Accompany H.R. 2810*, accessed January 6, 2018, http://docs.house.gov/billsthisweek/20171113/HRPT-115-HR2810.pdf.

- Repeal the statutory requirement for Focus on Urgent Operational Needs and Rapid Acquisition, Section 902 of the FY 2013 NDAA (Pub. L. No. 112–239; 10 U.S.C. § 2302 note).
- Repeal the statutory requirement for Senior Official for Dual-Use Science and Technology Projects, Section 203(c) of the FY 1998 NDAA (Pub. L. No. 105–85; 10 U.S.C. § 2511 note).
- Repeal the statutory requirement for Executive Agent for Printed Circuit Boards, Section 256 of FY 2009 NDAA (Pub. L. No. 110–417; 10 U.S.C. § 2501 note).
- Sunset the statutory requirement for Joint Directed Energy Transition Office (JDETO), 10 U.S.C. § 219 (10 U.S.C. § 2431 note) in FY 2023.

Executive Branch

- No Executive Branch changes are required.

Implications for Other Agencies

- There are no cross-agency implications for this recommendation.