



DoD DIRECTIVE 5137.02

UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING (USD(R&E))

Originating Component: Office of the Chief Management Officer of the Department of Defense

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Incorporates and Cancels: See Paragraph 1.2.

Approved by: David L. Norquist, Deputy Secretary of Defense

Purpose: Under the authority vested in the Secretary of Defense by Sections 113 and of Title 10, United States Code (U.S.C.), this issuance:

- Establishes the position, responsibilities and functions, relationships, and authorities of the USD(R&E).
- Authorizes the USD(R&E), as a Principal Staff Assistant (PSA) reporting directly to the Secretary of Defense, to promulgate DoD policy within the responsibilities, functions, and authorities assigned in this issuance.

TABLE OF CONTENTS

- SECTION 1: GENERAL ISSUANCE INFORMATION 3
 - 1.1. Applicability. 3
 - 1.2. Qualifications Regarding Cancellation. 3
- SECTION 2: RESPONSIBILITIES AND FUNCTIONS..... 4
- SECTION 3: RELATIONSHIPS 12
 - 3.1. USD(R&E). 12
 - 3.2. USD(A&S). 12
 - 3.3. Chief Information Officer of the Department of Defense (DoD CIO). 13
 - 3.4. USD(P). 14
 - 3.5. Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of
 Defense (USD(C)/CFO). 15
 - 3.6. Director, Operational Test and Evaluation. 15
 - 3.7. Director, Cost Assessment and Program Evaluation. 15
 - 3.8. USD(I&S). 15
 - 3.9. USD(P&R). 16
 - 3.10. OSD PSAs and DoD Component Heads. 16
- SECTION 4: AUTHORITIES 17
- GLOSSARY 21
 - G.1. Acronyms. 21
 - G.2. Definitions. 22
- REFERENCES 24

SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY.

a. This issuance applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

b. Nothing in this issuance should be construed as preventing the Inspector General of the Department of Defense from fulfilling his or her duties pursuant to Title 5, U.S.C., Appendix, also known and referred to as “the Inspector General Act of 1978, as amended.”

1.2. QUALIFICATIONS REGARDING CANCELLATION.

This issuance incorporates USD(R&E) responsibilities and functions, relationships, and authorities from the documents enumerated in this Paragraph. The publication of this issuance, and the simultaneous publication of DoD Directive (DoDD) 5135.02, the inaugural chartering directive for the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)), will cancel:

a. DoDD 5134.01, “Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)),” December 9, 2005, as amended.

b. Deputy Secretary of Defense Memorandum, “Implementation Guidance for the Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” January 31, 2018.

c. Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018.

d. Deputy Secretary of Defense Memorandum, “Acquisition Roles and Responsibilities,” December 20, 2019.

SECTION 2: RESPONSIBILITIES AND FUNCTIONS

The USD(R&E) is the PSA and advisor to the Secretary and Deputy Secretary of Defense for all matters regarding the DoD Research and Engineering (R&E) Enterprise, defense R&E, technology development, technology transition, developmental prototyping, experimentation, and developmental testing activities and programs, and unifying defense R&E efforts across the DoD. In the exercise of assigned responsibilities, the USD(R&E):

- a. Serves as the Chief Technology Officer of the DoD with the mission of advancing technology and innovation. Advises the Secretary of Defense on all matters related to research; engineering; manufacturing; developmental test and evaluation; and technology development, innovation, and protection activities and programs in the DoD and occurring internationally. Establishes priorities across those matters to ensure conformance with Secretary of Defense policy and guidance.
- b. Provides technical leadership and oversight, establishes strategic priorities, issues guidance, and acts as the senior responsible official for the supervision of all programs and activities pertaining to the USD(R&E) whether derived from statute, or assigned at the discretion of the Secretary or Deputy Secretary of Defense. Ensures alignment of policies and priorities with Secretary of Defense policy and guidance.
- c. Establishes policies and strategic guidance and leads defense research; engineering; developmental prototyping and experimentation; technology development, exploitation, transition, and transfer; developmental test and evaluation; and manufacturing technology activities, including operation of the DoD Manufacturing Innovation Institutes; and microelectronics activities across the DoD Components. Initial areas of strategic leadership include the development or modernization of microelectronics, directed energy, hypersonics, fifth generation (5G) and next generation wireless networks (5G to next generation), artificial intelligence (AI)/machine learning, biotechnology, space autonomy, fully networked command, control, and communications (FNC3), cyber, and quantum science. These areas may change over time at the discretion of the USD(R&E).
- d. Leads prototyping initiatives to advance innovative or novel technology development, drive down technical and integration risk, and/or demonstrate new capability. Advises the USD(A&S) on prototypes that transition to or support acquisition pathways. This includes establishing Defense Program Planning guidance on the allocation of resources within areas of the USD(R&E) authorities.
- e. In coordination with other appropriate PSAs and DoD Component heads, leads the Department's strategy to address 5G challenges and opportunities.
- f. In coordination with the Secretary, and informed by the National Defense Strategy, identifies and defines the Department's modernization priorities. Establishes timelines for delivery of desired future capabilities, and develops Department-wide roadmaps for research and engineering investments in these priority areas. Serves as the Department's primary representative and spokesperson for the modernization priority areas, both within the Department and to government, industrial, and academic stakeholders. Coordinates research

and engineering activities across the Department to recommend investments that advance the goals and meet the timelines outlined in the modernization roadmaps, and identifies activities across the Department that run counter to the modernization roadmaps for potential resource reallocation.

g. Ensures the DoD technical infrastructure, engineering, and scientific capabilities as well as associated resources are aligned to the DoD priorities. Establishes the DoD annual strategic science and technology (S&T) investment strategy, resourced in the research, development, test and evaluation appropriation under Budget Activity 1-3 accounts; develops and issues policy and guidance to align the DoD S&T resources to this strategy; and conducts periodic reviews of DoD Component S&T investments to ensure progress against the DoD S&T goals. Identifies, tracks, and oversees all Advanced Component Development and Prototypes (Budget Activity 4) resources in order to ensure effective prototyping and alignment to DoD goals.

h. Reviews the investment priorities of contractors performing independent research and development (IR&D) in order to provide visibility and insight into those investments. Encourages open communication and dialogue regarding IR&D needs, priorities, activities, and results among IR&D participants and government S&T, research and development, and acquisition personnel in accordance with DoD Instruction (DoDI) 3204.01. Chairs the Research and Engineering Executive Committee to improve DoD insight of IR&D activities.

i. Manages the DoD S&T Enterprise portfolio to address near-term and far-term capability gaps against emerging threats.

(1) Develops and publishes an overarching DoD-wide S&T strategy. Leads cross-Service and agency technology-focused community of interest activities to align and de-conflict efforts to ensure maximum coverage of DoD capability gaps.

(2) Advocates for, and provides functional leadership of, DoD laboratory enterprise and facilities supporting research, development, test, and evaluation. Serves as the DoD chief steward and advocate for the DoD laboratory infrastructure, personnel, and core competencies. Assesses the quality and health of DoD laboratories to include independent reviews.

(3) Provides strategic direction and leadership for the DoD basic research programs. Assesses the quality of DoD basic research to include independent technical reviews. Provides active oversight and final approval of joint basic research programs. Sets goals and approves final topic selection for the Multidisciplinary University Research Initiative program.

(4) Serves as the J-1 Visa Waiver signatory authority for foreign nationals with research of substantial interest to DoD under the purview of the Office of the Under Secretary of Defense for Research and Engineering (OUSDR&E)). Before submitting a J-1 Visa Waiver applications to the U.S. Department of State, coordinates with the Under Secretary of Defense for Intelligence and Security (USD(I&S)) when considering candidates for relief from the 2-year residency requirement of Section 212(e) of the Immigration and Nationality Act Public Law ((P.L.) 82-414).

(5) Oversees and represents the DoD on all international S&T activities and coordinates with the USD(A&S) and Under Secretary of Defense for Policy (USD(P)), as appropriate, on DoD international engagements, to include North Atlantic Treaty Organization components, allies, and friendly foreign partners. Maintains an international S&T engagement strategy.

(6) Establishes partnerships and cooperation agreements, memoranda of agreement, project agreements, and other international collaboration mechanisms covering areas of S&T, developmental prototyping, and associated experimentation to ensure continued and expanded U.S. technical superiority and consistency with statutory and other requirements. Relevant actions are completed in coordination with the USD(P), as appropriate.

(7) Develops policies, guidance, and direction for the protection of human subjects in research, including with regard to adherence to ethical standards: Exercises the authorities of:

(a) The Head of the Department identified in Section 219 of Title 32, Code of Federal Regulations.

(b) The Secretary of Defense, as identified in Subparts B-D of Section 46, Title 45, Code of Federal Regulations for research described in DoDI 3216.02 and Section 980 of Title 10, U.S.C.

(8) Develops policies, guidance, and direction for the protection of animal subjects in research, including with regard to adherence to ethical standards. Is the DoD point of contact for all matters related to DoD compliance with the Animal Welfare Act and the principal DoD liaison with agencies outside the DoD on matters pertaining to animal care and use for research, development, test, evaluation, education, and training.

j. In coordination with the USD(I&S) and the USD(A&S), establishes DoD technology protection policy to establish, align, and implement DoD-wide activities that maintain technological advantage and mitigate the exploitation of critical programs and technologies by adversaries.

(1) Leads the Department in assessment, promotion and development of emerging technology and the manufacturing innovation base. Assesses potential and emerging threats to technologies, recommends actions and investments to prevent and combat exploitation of critical information, missions, programs, and technologies, and to exploit adversary vulnerabilities and defeat their capabilities.

(2) Provides expert technological review of matters related to Committee on Foreign Investment in the United States issues in partnership with the USD(A&S).

(3) Provides technical advice and consultation in support of Defense Technology Security Administration, as appropriate, regarding export control regulations and license review policy. Coordinates technology security-related matters with Defense Technology Security Administration. Coordination includes the prioritization of critical technologies for inclusion in the Commerce Control List and the U.S. Munitions List and the processing of export license

applications that may involve programs or technologies requiring protection consistent with national security objectives.

(4) In support of the cyber-secure Defense Industrial Base (DIB), performs cyber incident damage assessments of technical information losses when members of the DIB report an incident; assesses cybersecurity and supply chain risks of DoD programs; and technologies and identifies potential mitigations.

(5) Oversees the DoD Domestic Technology Transfer Program.

(6) Administers the Manufacturing Technology Program, and manages the Joint Defense Manufacturing Technology Panel, in accordance with Section 2521 of Title 10, U.S.C.

k. Oversees, provides strategic direction, and develops policy for the DoD use of Federally Funded Research and Development Centers and DoD University-Affiliated Research Centers consistent with law and regulation, and ensures alignment with the National Defense Strategy and modernization priorities.

l. Leads the DoD in key innovation efforts through the Small Business Innovation Research and Small Business Technology Transfer programs to ensure alignment with priorities and ensure advancement of the goal of increasing private-sector commercialization of innovations derived from DoD research and development funding.

m. Establishes pilot initiatives that implement alternative acquisition approaches and embrace agile practices to innovate, develop, exploit, and facilitate technology transfer to the DoD. In conjunction with the USD(A&S), identifies, evaluates, and promotes opportunities to reduce barriers to entry for commercial technologies and non-traditional defense partners. Leads initiatives to engage non-traditional suppliers of technology. Identifies opportunities to use existing capabilities in new and unanticipated ways to disrupt the adversary. Transitions successfully piloted acquisition approaches to the USD(A&S) for potential instantiation into policy, guidance, oversight, and implementation.

n. Identifies and oversees cross-cutting demonstration, developmental prototyping and experimentation activities, evaluation of strategic capability alternatives, and new mission capabilities for the joint warfighter, while focusing on expediting transition timelines to meet critical challenges and operational problems.

o. Advises the Joint Requirements Oversight Council on matters within the USD(R&E) authority and expertise to inform and influence requirements, concepts, capabilities-based assessments, and concepts of operation.

p. Advises the Warfighter Senior Integration Group, providing insights into technical risk, and recommends if potential prototypes or emerging technologies might contribute to meeting Joint Urgent Operational Needs, Joint Emergent Operational Needs, Warfighter Senior Integration Group-identified urgent issues, or Rapid Acquisition Authority actions.

q. In coordination with key stakeholders, develops governing policy and advances practices and workforce competency for the following technical activities: engineering, developmental

test and evaluation, reliability and maintainability, manufacturability, quality, system safety, human systems integration, modular open systems approach, resilient systems, software development, hardware and software assurance, system security engineering, , modeling and simulation, and digital engineering.

r. Develops developmental test and evaluation policy, and approves the developmental test and evaluation plans within Test and Evaluation Master Plans for those programs identified for direct oversight, in accordance with current DoD Test and Evaluation acquisition policies. Ensures appropriate test facilities, test ranges, tools, and related modeling and simulation capabilities are maintained within the DoD.

s. Leads the DoD, in coordination with the USD(A&S), in mission engineering policy, practices, and tools for analysis of warfighting concepts of operation, functions, systems, and technologies in an end-to-end mission context. Identifies capability and technology gaps to provide mission-based solutions to the requirements process and system-of-systems portfolio management, and inform investments in development of technologies, prototypes, testing, and design options. Aligns joint prototyping and experimentation and red-teaming activities to improve integrated mission performance.

t. Advises the USD(A&S) regarding materiel development decisions, milestone decisions, production decisions, and technology insertion strategies on Acquisition Category (ACAT) ID programs.

(1) Conducts assessments of technology, engineering, integration, and manufacturing risks.

(2) For Milestone B and C, provides an assessment of the sufficiency of developmental test and evaluation plans, including the use of automated data analytics or modeling and simulation tools and methodologies.

(3) Participates in major defense acquisition programs (MDAPs) Configuration Steering Boards, and Defense Acquisition Boards throughout the program lifecycle to advise on technical risk and impacts to cost, schedule, and performance.

(4) Prepares the post-Preliminary Design Review assessment prior to Milestone B to support the USD(A&S) determinations, in accordance with Section 2366b of Title 10, U.S.C.

u. Establishes policy (with the exception of Middle Tier of Acquisition prototyping) and exercises oversight authority over all DoD uses of developmental prototyping. This includes technology prototypes, such as breadboards and presentation prototypes, the intent of which is to drive down technical and integration risk and demonstrate a technical capability, to include manufacturability.

v. Establishes requirements for standardized sets of technical data to facilitate assessment and transparency, and to enable the advisory functions under purview of the USD(R&E).

w. Establishes policies for development and approval of systems engineering plans and program protection plans.

x. Establishes policy and coordinates Service implementation of policy relating to Modular Open Systems Approach, to include the specification, identification, development, and maintenance of major system interfaces and standards for use in major system platforms to enable incremental development and enhance competition, innovation, and interoperability.

y. Establishes policy and guidance for the conduct of Independent Technical Risk Assessments (ITRAs), consistent with Section 2448b of Title 10, U.S.C. Conducts and approves ITRAs for ACAT ID programs.

(1) Determines ITRA approval authority for ACAT IB/IC programs.

(2) Provides recurring review to DoD leadership of ITRAs, developmental test and evaluation sufficiency assessments, and Service disposition of recommendations.

z. In coordination with the USD(I&S) and other senior officials, where appropriate, supports MDAPs and other acquisition programs in the areas within which the USD(R&E) has direct or shared mission equities, including:

(1) Assured software and hardware.

(2) Program and technology protection.

(3) Technical information and data protection.

(4) Technology vulnerability and exploitation mitigation and assurance.

(5) Anti-tamper, reliability, maintainability, and supply chain risk management.

(6) Cyber security and resiliency.

(7) Program protection planning.

(8) Conduct of program and technology assessments, system engineering, technical risk, joint mission engineering, joint architectures, prototyping and experimentation outcomes, and technology-related recommendations.

aa. Chairs the Missile Defense Executive Board, pursuant to Section 1676(c)(3)(B) of P.L. 115-91.

ab. Develops and implements a space S&T strategy, jointly with the Director of National Intelligence and consistent with Section 2272 of Title 10, U.S.C.

ac. Establishes policies and procedures, in coordination with the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) and the USD(A&S), for the effective management of the R&E workforce in the DoD.

(1) Leads activities in science, technology, engineering, and mathematics fields and disciplines necessary to meet the national defense needs, pursuant to Sections 2191-2199 of Title

10, U.S.C. Administers the Science, Mathematics, and Research for Transformation Program, in accordance with Section 2192(a) of Title 10, U.S.C., and DoDI 1025.09.

(2) Approves, pursuant to paragraph 4.r of this Directive, personnel demonstration projects at all of the DoD Science and Technology Reinvention Laboratories.

ad. Sponsors the Defense Science Board and the Defense Innovation Board.

ae. Develops and implements DoD Grants and Agreement Regulatory System (DGARS) policies and procedures through the issuance of the DGARS and, as necessary, DoDIs and other issuances. Provides oversight to the systems, as required under DGARS, for the management of DoD assistance awards. The USD(R&E) will coordinate changes to DGARS with the Secretaries of the Military Departments and other appropriate PSAs and DoD Component Heads.

af. Manages the Defense Standardization Program to promote standardization of materiel, information technology, facilities, and engineering practices.

ag. Advises the Secretary of Defense on matters regarding technologies for the utilization of energy and exercises all responsibilities and authorities of the Secretary of Defense as they pertain to R&E, in accordance with Sections 2924-2926 of Title 10, U.S.C. In concert with the USD(A&S) and the CJCS, exercises all responsibilities and authorities of the Secretary of Defense in Sections 2924-2926 of Title 10, U.S.C.

ah. Serves as the DoD senior accountable official for value engineering, pursuant to Office of Management and Budget (OMB) Circular No. A-131.

ai. Establishes partnerships with industry associations to develop commercial or non-government standards to replace military specifications and standards, where practicable, consistent with Section 2305 of Title 10 U.S.C. note.

aj. Serves as the Principal Disclosure Authority for classified military information originated by USD(R&E). Exercises foreign disclosure authority over classified military information originated by USD(R&E)-funded programs and activities, in accordance with DoDD 5230.11.

(1) Serves as USD(R&E) on the National Military Information Disclosure Policy Committee.

(2) Applies foreign disclosure policies and procedures as required by DoDD 5230.11 to facilitate sharing of classified military information originated by USD(R&E)-funded programs and activities in support of international cooperation, foreign military sales, or direct commercial sales programs or other international engagement activities.

ak. Participates in, or designates a representative for, the councils, boards, working groups, or other similar forums for which the USD(R&E) is directed to participate as a member. Such direction may take the form of statutory, regulatory, or Secretarial discretionary instruction.

al. Provides policy and guidance relevant to activities within the purview of the USD(R&E), in coordination with the USD(I&S) and the USD(A&S), regarding contractor access to classified information.

am. Coordinates with the USD(I&S) and the USD(A&S) on information sharing policy and implementation of Controlled Unclassified Information with the DoD R&E Enterprise and the public.

an. Ensures Special Access Program (SAP) oversight by establishing an OUSD(R&E) SAP Central Office and designating a OUSD(R&E) SAP Central Office Director to be responsible for executing the responsibilities outlined in DoDD 5205.07. Exercises cognizance and oversight of designated DoD SAPs and personnel granted access to these programs.

ao. In coordination with the USD(P) and USD(I&S), manages and oversees DoD Alternative Compensatory Control Measures, consistent with Volume 3 of DoD Manual 5200.01.

ap. Ensures that assigned policies and programs are designed and managed to improve standards of performance, ethics, economy, and efficiency and that all of the Defense Agencies and DoD Field Activities under the authority, direction, and control of the USD(R&E) are attentive and responsive to the requirements of their organizational customers, both internal and external to DoD.

aq. Periodically assesses the DoD Executive Agent assignments under the cognizance of the USD(R&E) for continued need, currency, and effectiveness and efficiency in satisfying end-user requirements, in accordance with DoDD 5101.01.

ar. Uses existing systems, facilities, and services of DoD and other federal departments and agencies, when possible, to avoid duplication and achieve maximum efficiency and economy.

as. Performs such other duties as the Secretary of Defense may prescribe.

SECTION 3: RELATIONSHIPS

3.1. USD(R&E).

In performing his or her assigned responsibilities and functions, the USD(R&E):

- a. Reports directly to the Secretary of Defense.
- b. Exercises authority, direction, and control over:
 - (1) The Deputy Under Secretary of Defense for R&E.
 - (2) The Director, Defense R&E for Advanced Capabilities.
 - (3) The Director, Defense R&E for Modernization.
 - (4) The Director, Defense R&E for Research and Technology.
 - (5) The Director, Defense Advanced Research Projects Agency.
 - (6) The Director, Missile Defense Agency.
 - (7) The Director, Space Development Agency.
 - (8) The Director, Defense Innovation Unit.
 - (9) The Director, Defense Microelectronics Activity.
 - (10) The Administrator, Defense Technical Information Center.
 - (11) The Director, Test Resource Management Center.
 - (12) Such other positions and organizations as may be established by the USD(R&E), consistent with applicable law, using resources provided by the Secretary of Defense.
- c. Coordinates and exchanges information with the other OSD officials, DoD Component heads, and federal, State, or local officials having collateral or related functions.

3.2. USD(A&S).

The USD(A&S) coordinates with the USD(R&E) to:

- a. Ensure that developmental technologies are successfully transferred for acquisition, in accordance with the efforts, strategies, and requirements of the USD(R&E), in support of the interests of the Secretary, the needs of the Combatant Commanders, and the mission of the DoD.

b. Support the establishment of programs and development of capabilities to foster priority technologies and joint mission engineering.

c. Ensure:

(1) The seamless functioning of acquisition program governance where both officials have equities, such as the USD(R&E) responsibility for the completion of ITRAs.

(2) The effective consideration of sustainment factors and system attributes early in the weapon system design in accordance with Section 2443 of Title 10 U.S.C.

(3) Appropriate engineering processes are being implemented, among others.

d. Jointly support the successful achievement of both officials' responsibilities, especially in regard to:

(1) The promotion of rapid and innovative acquisition processes.

(2) Maintenance of U.S. technological advantages over adversaries.

(3) The efficiency and effectiveness of the overall systems development and acquisition process from technology evaluation through acquisition, operation, maintenance, retirement, and replacement.

e. Support efforts in those areas in which equities are shared, or closely adjacent, such as international agreements for technology advancement and industrial base policy, fostering of innovation, preservation of the industrial base, and management.

f. Ensure that efforts to identify and rectify capability gaps are communicated and coordinated, especially when addressing matters affecting multiple DoD Components.

g. Support the cyber-secure DIB.

3.3. CHIEF INFORMATION OFFICER OF THE DEPARTMENT OF DEFENSE (DOD CIO).

a. The DoD CIO coordinates with the USD(R&E) on Information Technology, information resource, and data management matters, in accordance with applicable DoD Information Technology policy and law.

b. In the area of FNC3 and cyber, the responsibilities for policy, oversight, and guidance for the architecture and programs related to FNC3 and cyber defense architecture of the DoD, as required by Section 902 in Public Law 114-328, resides with the DoD CIO. The authority over research and development of FNC3 and cyberspace capabilities resides with the USD(R&E). The USD(R&E) provides the underpinning research, technology development, and technical advice to the DoD CIO and the Commander, U.S. Cyber Command in the areas of operationalizing command and control; communications; networking; AI; positioning,

navigation, and timing (PNT) alternatives; and electromagnetic spectrum management to better inform DoD policies.

c. Within the area of AI and Machine Learning, the USD(R&E) oversees research and development activities. USD(R&E) will coordinate with CIO on transitioning AI R&E products to the warfighter.

d. Coordinates with the USD(R&E) on electromagnetic spectrum allocation, planning, and use to facilitate research, development, test, and engineering activities including next generation communications development and employment, space technology development, and test facility infrastructure modernization.

e. Coordinates with the USD(R&E) to:

(1) Incorporate cybersecurity and cyber risk management into the research and engineering of information technology (IT) solutions and IT initiatives within the DoD.

(2) Develop, maintain, and manage the implementation of a sound, secure, and integrated DoD IT architecture.

(3) Ensure the interoperability of IT throughout the DoD.

(4) Prescribe IT standards, including network and cybersecurity standards that apply throughout the DoD and the DIB.

(5) Support the USD(R&E) on all IT and cyber infrastructure matters and investment decisions, including IT-intensive software systems.

(6) Develop and maintain a process for maximizing the value of, and assessing and managing the risks related to, DoD IT acquisitions.

(7) Ensure that guidance for PNT and navigation warfare is incorporated into research and development programs for systems that produce or use PNT information, and to ensure that test and evaluation plans for these programs are sufficient to validate platform or system navigation warfare compliance.

3.4. USD(P).

The USD(P):

a. Coordinates with the USD(R&E) in regards to those programs for which the USD(P) has authority over policy, outcomes, or interface with external stakeholders, but where execution is managed through those components under the authority, direction, and control of the USD(R&E) or where operational guidance is predominantly provided by the USD(R&E) due to the mission or nature of the program.

b. Consults with the USD(A&S) and the USD(R&E) in establishing and managing USD(P) cooperative research and development programs in order to promote mutually beneficial international cooperative research and development programs consistent with national security considerations and, as appropriate, to ensure that acquisition aspects of export control policies and procedures necessary to protect the national security interests of the United States are technologically sound.

3.5. UNDER SECRETARY OF DEFENSE (COMPTROLLER)/CHIEF FINANCIAL OFFICER, DEPARTMENT OF DEFENSE (USD(C)/CFO).

The USD(C)/CFO:

a. Coordinates with the USD(R&E) regarding the adequacy of the President's Budget Request in meeting DoD R&E resource goals, objectives, and allocation of resources. Coordinates with the USD(R&E) in regards to the identification of reprogramming and reallocation actions required to achieve the desired results.

b. Coordinates with the USD(R&E) before approving the transfer or reprogramming of funds into or from a program or activity under the responsibilities of the USD(R&E).

3.6. DIRECTOR, OPERATIONAL TEST AND EVALUATION.

The Director, Operational Test and Evaluation submits reports of operational and live fire tests and evaluations carried out to the USD(A&S) and the USD(R&E), and other senior officials as needed, in accordance with Sections 2366 and 2399 of Title 10, U.S.C.

3.7. DIRECTOR, COST ASSESSMENT AND PROGRAM EVALUATION.

The Director, Cost Assessment and Program Evaluation:

a. Coordinates with the USD(R&E), the USD(A&S), and the USD(I&S) in fulfilling the Director's role as the principal official responsible for assessments of SAP and compartmented intelligence programs, consistent with Section 139a of Title 10, U.S.C.

b. Receives advice from the USD(R&E) during the preparation of analysis of alternatives study guidance.

3.8. USD(I&S).

The USD(I&S):

a. Coordinates with the USD(R&E), USD(A&S), and other elements of the DoD and the Intelligence Community regarding development of algorithm-based technology initiatives affecting intelligence mission areas within the Defense Intelligence Enterprise.

b. Coordinates all policies related to sharing of Controlled Unclassified Information, or use of such information in a secure environment, with the USD(R&E) and the USD(A&S).

c. Coordinates with the USD(R&E), the USD(A&S), and the Director, CAPE, in assessments of SAP and compartmented intelligence programs, consistent with Section 139a of Title 10, U.S.C.

3.9. USD(P&R).

The USD(P&R):

a. Coordinates on the inclusion of training considerations throughout the acquisition process ensuring concurrent development and sustainment of training capabilities with systems.

b. Coordinates actions or activities that may affect the training capabilities of major defense acquisition programs and major automated information systems.

c. Coordinates policy holding DoD labs, researchers, and developers responsible for ensuring that embedded training concepts are properly considered during research, engineering, prototyping, testing, and evaluation.

3.10. OSD PSAS AND DOD COMPONENT HEADS.

The OSD PSAs and DoD Component heads coordinate with the USD(R&E) on matters under their purview related to the responsibilities, functions, and authorities assigned to the USD(R&E) in this issuance.

SECTION 4: AUTHORITIES

Pursuant to the authority vested in the Secretary of Defense, and subject to his or her authority, direction, and control, and in accordance with DoD policies and issuances, the USD(R&E) is hereby delegated authority to exercise, within assigned responsibilities and functions, all authority of the Secretary of Defense derived from statute, Executive order (E.O.), or interagency agreement, except where specifically limited by statute or Executive order to the Secretary of Defense. The USD(R&E) is specifically delegated authority to:

a. Establish DoD policy, through DoDIs, Directive-type Memorandums (DTMs), and rules published in the Federal Register, within the authorities and responsibilities assigned in this issuance and in accordance with DoDI 5025.01 or Administrative Instruction 102.

(1) In those documents, assign responsibilities related to the authorities and responsibilities in this issuance to other OSD PSAs and the DoD Component heads. Assignment of responsibilities in DoD issuances or rules published in the Federal Register publications to Military Department officials must be made through the Secretaries of those Departments. DoD issuances or rules published in the Federal Register assigning responsibilities to the Combatant Commands must be coordinated with the CJCS.

(2) DoDIs and DTMs must be fully coordinated, in accordance with DoDI 5025.01. Rules published in the Federal Register must be fully coordinated with impacted OSD and DoD Component heads and be consistent with Administrative Instruction 102.

(3) This authority may not be redelegated.

b. Approve other DoDIs, DoD manuals, and DTMs, in areas of assigned responsibilities and functions, that implement policy already established by a DoDD, DoDI, DTM, or policy memorandum issued by the Secretary or Deputy Secretary of Defense.

(1) In those documents, assign responsibilities related to the authorities and responsibilities in this issuance to other OSD PSAs and the DoD Component heads. Assignment of responsibilities in these DoD issuances to Military Department officials must be made through the Secretaries of those Departments. DoD issuances assigning responsibilities to the Combatant Commands must be coordinated with the CJCS.

(2) Such documents must be fully coordinated in accordance with DoDI 5025.01.

(3) This authority may only be further delegated to officials as specified in DoDI 5025.01.

c. Approve Federal Register publication of significant guidance documents as defined in E.O. 13891 and determined by the OMB. This authority may not be redelegated.

d. Approve the Federal Register publication of documents other than rules and significant guidance documents (e.g., notices, orders, and non-significant guidance documents as defined by E.O. 13891 and determined by the OMB), in accordance with Administrative Instruction 102. Unless otherwise restricted by law, this authority may be further delegated only in writing to

officials at or above the level of a general or flag officer, Senior Executive Service member, or equivalent.

e. Reissue, when necessary, in accordance with DoDI 5025.01, Chartering DoDDs for those OSD officials who were appointed by the President with the advice and consent of the Senate and who are under the authority, direction, and control of the USD(R&E). This authority may not be redelegated. The Chief Management Officer of the Department of Defense continues to develop and maintain these Chartering DoDDs, in accordance with DoDI 5025.01.

f. Communicate directly with the DoD Component heads, as necessary, to carry out assigned responsibilities and functions, including transmitting requests for advice and assistance. Communications to Military Department officials must be transmitted through the Secretaries of the Military Departments or as otherwise provided in law or directed by the Secretary of Defense in other DoD issuances. Communications to the Combatant Commanders must be in accordance with DoDD 5100.01.

g. Communicate with other government officials, members of the public, and representatives of foreign governments, as appropriate, in carrying out assigned responsibilities and functions. Communications with representatives and members of the Legislative Branch must be conducted through the Office of the Assistant Secretary of Defense for Legislative Affairs, except for communications with the Defense Appropriations Committees, which must be coordinated with the Office of the USD(C)/CFO.

h. Communicate with departments and agencies of the Executive Branch, and Congress on SAP matters under USD(R&E) cognizance or oversight. For all SAP matters, the USD(R&E) must conduct communications with departments and agencies of the Executive Branch and Congress, in accordance with DoDD 5205.07.

i. Obtain reports and information, in accordance with DoDI 8910.01, as necessary, to carry out assigned responsibilities and functions.

j. Establish arrangements for DoD participation in non-DoD governmental programs for which the USD(R&E) is assigned primary DoD cognizance.

k. Enter into support agreements, as required for the effective performance of responsibilities and functions assigned to the USD(A&S), in accordance with DoDI 4000.19 and the February 13, 2020 Deputy Secretary of Defense Memorandum.

l. Serve as the Secretary's R&E interface in appointed duties with other federal government agencies, including the:

(1) U.S. Departments of State, Commerce, Justice, Energy, Homeland Security, and Treasury.

(2) The Intelligence Community.

(3) The Federal Aviation Administration.

- (4) The Federal Communications Commission.
- (5) The National Aeronautics and Space Administration.
- (6) General Services Administration.
- (7) The National Science Foundation.
- (8) Foreign governments.
- (9) International organizations.
- (10) State, local, and tribal agencies.
- (11) The U.S. Congress.

(12) The White House, to include the National Security Council, National Science and Technology Council, National Space Council, OMB, Office of S&T Policy, Council on Oversight of the DoD PNT Enterprise, and Semiconductor Technology Council.

m. Exercise up to Top Secret original classification authority as delegated by the Secretary of Defense, in accordance with E.O. 13526 and DoDI 5200.01.

n. Exercise advisory authority with regard to MDAPs consistent with USD(R&E) roles and responsibilities.

o. Approve the use of other transaction agreements for:

(1) Research (to include technology investment agreements), in accordance with Section 2371 of Title 10, U.S.C.

(2) Prototyping, in accordance with Section 2371b of Title 10, U.S.C.

p. In accordance with the duties and powers under Section 133b of Title 10, U.S.C. and consistent with P.L. 85-804 and E.O. 10789, in addition to the Secretary of Defense and the Secretaries of the Military Departments, the USD(R&E) may exercise authority to indemnify against unusually hazardous or nuclear risks, as appropriate, in carrying out the USD(R&E)'s assigned responsibilities and functions.

q. In accordance with Chapter 111 of Title 10, U.S.C., exercise all authorities and responsibilities of the Secretary of Defense relating to support of science, technology, engineering, and mathematics education and training. In accordance with Section 2192(c) of Title 10, U.S.C., the USD(R&E) is designated to advise and assist the Secretary of Defense regarding matters relating to science, technology, engineering, and mathematics education and training.

r. Carry out personnel demonstration projects, in accordance with Section 342 of P.L. 103-337, and pursuant to Section 4703 of Title 5, U.S.C., with specified exceptions. Exercise the

authorities granted to the Office of Personnel Management, pursuant to Section 4703 of Title 5, U.S.C..

s. Carry out programs, as appropriate, to award cash prizes for advanced technology achievements to recognize outstanding achievements in basic, applied and advanced research, technology development, and prototype development that have the potential for application to the performance of the military missions of the DoD, pursuant to Section 2374a of Title 10, U.S.C.

t. Carry out the Defense Acquisition Challenge Program to provide opportunities for the increased introduction of innovative and cost-saving technology in acquisition programs of the DoD, in accordance with Section 2359 of Title 10, U.S.C.

u. Make written determinations for conduct of all closed meetings of Federal Advisory Committees under his or her cognizance, as prescribed by Appendix II, Section 10(d) of Title 5 of P.L. 92-463.

v. Exercise all powers conferred upon the Secretary of Defense under Sections 181, 182, and 184 of Title 35, U.S.C., with respect to the secrecy of certain inventions and the withholding of patents.

GLOSSARY

G.1. ACRONYMS.

ACRONYM	MEANING
5G	fifth generation
ACAT	Acquisition Category
AI	artificial intelligence
CJCS	Chairman of the Joint Chiefs of Staff
DDR&E	Director, Defense Research and Engineering
DGARS	DoD Grants and Agreement Regulatory System
DIB	Defense Industrial Base
DoD CIO	Chief Information Officer of the Department of Defense
DoDD	DoD directive
DoDI	DoD instruction
DTM	directive-type memorandum
E.O.	Executive order
FNC3	Fully Networked Command, Control, and Communications
IR&D	independent research and development
IT	information technology
ITRA	Independent Technical Risk Assessment
MDA	Milestone Decision Authority
MDAP	major defense acquisition program
OMB	Office of Management and Budget
OUUSD(R&E)	Office of the Under Secretary of Defense for Research and Engineering
P.L.	Public Law
PNT	positioning, navigation, and timing
PSA	Principal Staff Assistant
R&E	Research and Engineering
SAP	Special Access Program
S&T	science and technology
U.S.C.	United States Code
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment

USD(C)/CFO	Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense
USD(I&S)	Under Secretary of Defense for Intelligence and Security
USD(P)	Under Secretary of Defense for Policy
USD(P&R)	Under Secretary of Defense for Personnel and Readiness
USD(R&E)	Under Secretary of Defense for Research and Engineering

G.2. DEFINITIONS.

These terms and their definitions are for the purpose of this issuance.

TERM	DEFINITION
ACAT	Categories established to facilitate decentralized decision making and execution and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority, and applicable procedures. ACAT categories include: ACAT I (including IB, IC, and ID), ACAT II, ACAT III, ACAT IV (Navy and Marine Corps only), and Abbreviated Acquisition Program (Navy and Marine Corps only).
DoD R&E Enterprise	Includes the Military Departments and their laboratories, other DoD laboratories and product centers, other federal government laboratories, Federally Funded Research and Development Centers, University Affiliated Research Centers, U.S. and allied universities, U.S. allied and partner government laboratories, and industry.
MDAP	An acquisition program within the meaning of Section 2430 of Title 10, U.S.C.
MDA	Designated individual with overall responsibility for a program. The MDA will have the authority to approve entry of an acquisition program into the next phase of the acquisition process and will be accountable for cost, schedule, and performance reporting to higher authority, including Congressional reporting.
other OSD officials	The OSD Component heads who also serve as PSAs, and the other OSD Presidentially Appointed, Senate-confirmed officials.
R&E	Includes S&T programs, advanced component development and prototypes programs (Budget Activity 4 in DoD 7000.14R), and all programs executed at Defense laboratories.

TERM

DEFINITION

S&T

Includes programs consisting of basic research, applied research, and advanced technology development, which are identified as Budget Activities 1, 2, and 3, respectively, in DoD 7000.14R.

REFERENCES

- Administrative Instruction 102, “Office of the Secretary of Defense (OSD) Federal Register (FR) System,” November 6, 2006, as amended
- Code of Federal Regulations, Title 32, Part 219
- Code of Federal Regulations, Title 45, Part 46, Subparts B-D
- Defense Innovation Board Charter, April 15, 2016, as amended
- Defense Science Board Charter, May 6, 2018
- Deputy Secretary of Defense Memorandum, “Delegation of Authority for OSD Component Heads to Enter into Support Agreements,” February 13, 2020
- Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, “Science, Technology, Mathematics, and Engineering Education Delegation of Authority to Director, Defense Research and Engineering (DDR&E),” October 12, 2010 (hereby canceled)
- DoD 7000.14-R, Volume 2B, “Department of Defense Financial Management Regulation: Budget Formulation and Presentation”, current edition
- DoD Directive 5100.01, “Functions of the Department of Defense and Its Major Components,” December 21, 2010
- DoD Directive 5101.01, “DoD Executive Agent,” September 3, 2002, as amended
- DoD Directive 5135.02, “Under Secretary of Defense for Acquisition and Sustainment (A&S),” July 15, 2020
- DoD Directive 5205.07, “Special Access Program (SAP) Policy,” July 1, 2010, as amended
- DoD Directive 5230.11, “Disclosure of Classified Military Information to Foreign Governments and International Organizations,” June 16, 1992
- DoD Instruction 1025.09, “Science, Mathematics, and Research for Transformation (SMART) Defense Education Program,” October 27, 2016, as amended
- DoD Instruction 3204.01, “DoD Policy for Oversight of Independent Research and Development (IR&D),” August 20, 2014, as amended
- DoD Instruction 3216.02, “Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research,” November 8, 2011, as amended
- DoD Instruction 4000.19, “Support Agreements,” April 25, 2013, as amended
- DoD Instruction 5025.01, “DoD Issuances Program,” August 1, 2016, as amended
- DoD Instruction 5200.01, “DoD Information Security Program and Protection of Sensitive Compartmented Information (SCI),” April 21, 2016, as amended
- DoD Instruction 8910.01, “Information Collection and Reporting,” May 19, 2014
- DoD Manual 5200.01, Volume 3, “DoD Information Security Program: Protection of Classified Information,” February 24, 2012, as amended
- Executive Order 10789, “Authorizing Agencies of the Government to Exercise Certain Contracting Authority in Connection with National Defense Functions and Prescribing Regulations Governing the Exercise of Such Authority,” November 14, 1958

Executive Order 13526, "Classified National Security Information," December 29, 2009
Executive Order 13891, "Promoting the Rule of Law through Improved Agency Guidance Documents," October 9, 2019
Office of Management and Budget Circular A-131, "Value Engineering," May 21, 1993, as amended
Public Law 103-337, "National Defense Authorization Act for Fiscal Year 1995," October 5, 1994
Public Law 114-328, "National Defense Authorization Act for Fiscal Year 2017," December 23, 2016
Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," December 12, 2017
Public Law 92-463, "Federal Advisory Committee Act," October 6, 1972
Public Law 85-804, "An act to authorize the making, amendment, and modification of contracts to facilitate the national defense," August 28, 1958
Public Law 82-414, "An Act to revise the laws relating to immigration, naturalization, and nationality," June 27, 1952
United States Code, Title 10
United States Code, Title 35
United States Code, Title 5