



Department of Defense **DIRECTIVE**

NUMBER 5200.47E

September 4, 2015

Incorporating Change 1, August 28, 2017

USD(AT&L)

SUBJECT: Anti-Tamper (AT)

References: See Enclosure 1

1. PURPOSE. This directive:

a. Establishes policy and assigns responsibilities for AT protection of critical program information (CPI) in accordance with DoD Instruction (DoDI) 5000.02 (Reference (a)) and DoDI 5200.39 (Reference (b)).

b. Designates the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) as the Principal Staff Assistant (PSA) responsible for oversight of the DoD AT program and policy, in accordance with the DoD Directive (DoDD) 5101.1 (Reference (c)).

c. Designates the Secretary of the Air Force (SECAF) as the DoD Executive Agent (EA) for AT in accordance with Reference (c).

d. Incorporates and cancels USD(AT&L) memorandums (References (d) and (e)).

2. APPLICABILITY. This directive applies to:

a. OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff 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 directive as the "DoD Components").

b. All DoD activities, research, development, test, and evaluation programs, urgent operational needs programs, international cooperative programs, foreign military sales, direct commercial sales, excess defense article transfers, and any other exports in which CPI is resident within the end item.

3. POLICY. It is DoD policy to:

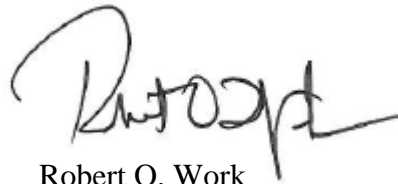
a. Deter, impede, detect, and respond to the exploitation of CPI based on the consequence of CPI compromise and the anticipated system exposure through the application of cost-effective, risk-based protections, to include AT when warranted, in accordance with Reference (b).

b. Support the sale or transfer of certain defense articles to foreign governments and their participating contractors while preserving U.S. and foreign investments in CPI through the implementation of AT, in accordance with References (a) and (b).

4. RESPONSIBILITIES. See Enclosure 2.

5. RELEASABILITY. **Cleared for public release.** ~~This directive is available on the Internet from the DoD Issuances Website at <http://www.dtic.mil/whs/directives>~~ *This directive is available on the Directives Division Website at <http://www.esd.whs.mil/DD/>.*

6. EFFECTIVE DATE. This directive is effective September 4, 2015.



Robert O. Work
Deputy Secretary of Defense

Enclosures

1. References
2. Responsibilities

Glossary

ENCLOSURE 1

REFERENCES

- (a) DoD Instruction 5000.02, "Operation of the Defense Acquisition System," January 7, 2015, *as amended*
- (b) DoD Instruction 5200.39, "Critical Program Information (CPI) Identification and Protection Within Research, Development, Test, and Evaluation (RDT&E)," May 28, 2015
- (c) DoD Directive 5101.1, "DoD Executive Agent," September 3, 2002, as amended
- (d) Under Secretary of Defense for Acquisition and Technology Memorandum, "Implementation of Anti-Tamper (AT) Techniques in Acquisition Programs," February 4, 1999 (hereby cancelled)
- (e) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, "Implementing Anti-Tamper (AT)," January 5, 2001 (hereby cancelled)
- (f) DoD Instruction S-5230.28, "Low Observable (LO) and Counter Low Observable (CLO) Programs (U)," May 26, 2005
- (g) DoD Directive 5205.07, "Special Access Program (SAP) Policy," July 1, 2010
- (h) DoD Instruction 5205.11, "Management, Administration, and Oversight of DoD Special Access Programs (SAPs)," February 6, 2013
- (i) DoD Instruction 8500.01, "Cybersecurity," March 14, 2014
- (j) DoD Directive 5100.20, "National Security Agency/Central Security Service (NSA/CSS)," January 26, 2010
- (k) Defense Security Cooperation Agency Manual 5105.38, "Security Assistance Management Manual (SAMM)," April 30, 2012
- (l) DoD Directive 5000.01, "The Defense Acquisition System," May 12, 2003, as amended
- (m) Chairman of the Joint Chiefs of Staff Instruction 3170.01H, "Joint Capabilities Integration and Development System," January 10, 2012

ENCLOSURE 2
RESPONSIBILITIES

1. USD(AT&L). As the PSA for AT, the USD(AT&L):
 - a. Oversees and directs the DoD EA for AT in accordance with Reference (c).
 - b. Establishes policy and provides guidance for research, development (to facilitate early AT planning and design), test, evaluation, and implementation of AT in coordination with the DoD EA for AT and the DoD Component offices of primary responsibility (OPRs) for AT.
 - c. Provides AT strategic guidance and decision-making in his or her capacity as the Low Observable and Counter Low Observable (LO/CLO) Executive Committee Chairman in accordance with DoDI S-5230.28 (Reference (f)).
 - d. Guides, reviews, and approves the development strategy for AT technologies.

2. DIRECTOR, SPECIAL PROGRAMS. Under the authority, direction, and control of the USD(AT&L), the Director, Special Programs:
 - a. Ensures the application of AT for special access programs in coordination with the DoD Component heads and in accordance with Reference (b), DoDD 5205.07 (Reference (g)), and DoDI 5205.11 (Reference (h)).
 - b. Confirms the horizontal protection of CPI via AT as the LO/CLO Tri-Service Committee Chairman in accordance with Reference (f).

3. UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE (USD(I)). The USD(I) prioritizes, collects, and distributes AT intelligence and counterintelligence (CI), with support from the DoD Component intelligence organizations, to the DoD EA for AT and the DoD Component OPRs for AT.

4. DIRECTOR, NATIONAL SECURITY AGENCY/CHIEF, CENTRAL SECURITY SERVICE (DIRNSA/CHCSS). Under the authority, direction, and control of the USD(I) and in addition to the responsibilities in section 6 of this enclosure, the DIRNSA/CHCSS:
 - a. Provides expertise and recommends technologies and tools in support of AT protection designs and implementations to the DoD EA for AT and DoD Component OPRs for AT.
 - b. As part of the cryptography review in DoDI 8500.01 (Reference (i)) and the communications security review in DoDD 5100.20 (Reference (j)), and in coordination with the

DoD EA for AT and the DoD Component OPRs for AT, confirms that cryptographic and communications security protections are implemented at a level commensurate with the required level of AT.

5. UNDER SECRETARY OF DEFENSE FOR POLICY (USD(P)). The USD(P):

a. As the DoD focal point for export controls, implements policies and processes to ensure AT requirements have been met before export of DoD systems with CPI.

b. Modifies DoD international policy in response to tamper events identified by the DoD EA for AT, as appropriate.

6. DoD COMPONENT HEADS. The DoD Component heads:

a. Establish an OPR for the budgeting, execution, security, and management of AT within their respective Components.

b. Determine requirements for, plan, design, implement, test, and evaluate AT based on the consequence of CPI compromise and the anticipated system exposure in accordance with Reference (b) and in alignment with requirements guidance from the DoD EA for AT.

c. Contribute to the development of AT architectures and technologies in support of current and future AT solutions to facilitate early AT planning and design in coordination with the DoD EA for AT.

d. Conduct program-independent evaluations of AT implementations, in alignment with guidance from the DoD EA for AT, in order to verify compliance with program and DoD AT protection and performance requirements.

e. Provide AT intelligence and CI support to the USD(I) through the DoD EA for AT.

7. SECAF. In his or her capacity as the DoD EA for AT under the oversight and direction of the PSA for AT, and in addition to the responsibilities in section 6 of this enclosure, the SECAF:

a. Develops AT management and technical guidance, to include guidelines for program-independent evaluations of AT implementations.

b. Conducts DoD-wide horizontal protection analysis of DoD Component AT planning documentation. Informs the LO/CLO Tri-Service Committee and the Milestone Decision Authority of AT-related horizontal protection issues.

c. Confirms that AT requirements have been met before export of DoD systems with CPI, in coordination with the USD(P) and the DoD Component heads.

- d. Develops acquisition workforce training and education for AT in coordination with the DoD Component OPRs for AT.
- e. Assesses and ensures the availability of AT architectures and technologies in support of current and future AT solutions to facilitate early AT planning and design in accordance with Reference (f).
- f. Maintains and implements DoD AT security classification guidance under the direction of the Director, Special Programs, in coordination with the DoD Component OPRs for AT.
- g. Develops AT intelligence and CI production and support requirements in coordination with the USD(I).
- h. Confirms that AT protections and cryptographic protections are implemented at a commensurate level, in coordination with the DIRNSA/CHCSS.
- i. Manages the effective and efficient resourcing of the DoD EA for AT, as well as DoD Component program-independent evaluations of AT implementations.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

| | |
|--------------|---|
| AT | anti-tamper |
| CI | counterintelligence |
| CPI | critical program information |
| DIRNSA/CHCSS | Director, National Security Agency/Chief, Central Security Service |
| DoDD | DoD Directive |
| DoDI | DoD Instruction |
| EA | executive agent |
| LO/CLO | low observable and counter low observable |
| OPR | office of primary responsibility |
| PSA | Principal Staff Assistant |
| SECAF | Secretary of the Air Force |
| USD(AT&L) | Under Secretary of Defense for Acquisition, Technology, and Logistics |
| USD(I) | Under Secretary of Defense for Intelligence |
| USD(P) | Under Secretary of Defense for Policy |

PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purposes of this directive.

AT. Systems engineering activities intended to prevent or delay exploitation of CPI in U.S. defense systems in domestic and export configurations to impede countermeasure development, unintended technology transfer, or alteration of a system due to reverse engineering.

AT architecture. A subset of the system architecture that implements AT protections with system-specific and platform-unique considerations. Enables the incorporation of AT concepts, processes, and technologies into the overall security architecture through an integrated systems security engineering approach in order to address all aspects of CPI protection.

AT plan. A document to help develop and communicate a program's AT protection throughout its lifecycle. Includes the CPI (organic and inherited) criticality and protection level, the program's AT concept, AT protection solution set and implementation description, the AT evaluation plan, and the key management plan, as applicable based upon the maturity of the program. The AT plan is an appendix to the Program Protection Plan.

commensurate level. An equivalent protection or set of protections.

CPI. Defined in Reference (b).

direct commercial sales. Defined in Defense Security Cooperation Agency Manual 5105.38 (Reference (k)).

excess defense article. Defined in Reference (k).

focal point. Defined in Reference (b).

foreign military sales. Defined in Reference (k).

horizontal protection analysis. Defined in Reference (b).

international cooperative program. Defined in Reference (a).

LO/CLO Tri-Service Committee. Defined in Reference (f).

Milestone Decision Authority. Defined in DoDD 5000.01 (Reference (l)).

test and evaluate. An activity to determine the degree to which the implemented AT solution meets program and DoD AT protection and performance requirements.

urgent operational need. Defined in Chairman of the Joint Chiefs of Staff Instruction 3170.01H (Reference (m)).