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SECRETARY OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE
POLICY DIRECTIVE 99-1**



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Test and Evaluation

TEST AND EVALUATION

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This Department of the Air Force Policy Directive (DAFPD) implements policies in Department of Defense Instruction (DoDI) 5000.89, *Test and Evaluation*. This document also implements policies in Department of Defense Directive (DoDD) 5000.01, *The Defense Acquisition System*, DoDD 3200.11, *Major Range and Test Facility Base (MRTFB)*, DoDD S-3325.01, *Foreign Materiel Program (FMP) (U)*, DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, DoDI 5000.75, *Business Systems Requirements and Acquisition*, and DoDI 5010.41, *Joint Test and Evaluation (JT&E) Program*. This DAFPD establishes broad policy and direction for all Department of the Air Force test and evaluation (T&E) activities, organizations, and infrastructure. This DAFPD applies to all Regular Air Force, Air Force Reserve, Air National Guard, and Space Force organizations that plan and/or conduct T&E activities. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with the Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility using Air Force Form 847, *Recommendation for Change of Publication*; route Air Force Forms 847 from the field through the appropriate functional chain of command. This publication may not be supplemented or extended.

SUMMARY OF CHANGES

This publication has been significantly changed and must be reviewed in its entirety. Major changes include adding support responsibilities for the newly established Space Force as stated in

Title 10 United States Code Section 9081 and changing this from an Air Force Policy Directive to a DAFPD.

1. Overview. This DAFPD establishes overarching Air Force and Space Force policy to ensure T&E is fully and effectively integrated throughout the Department of Defense (DoD) acquisition system. T&E provides detailed information on the progress of the system design, compliance with contractual requirements, combat capability, and the ability to be sustained once fielded. T&E activities also aid in identifying and managing the risks involved in developing, producing, operating, and sustaining systems and capabilities. Test expertise must be applied at the beginning of the system life cycle to provide earliest awareness about the strengths and weaknesses of the system under development. The goal is early identification of technical, operational, sustainment, and system attributes and deficiencies, so that appropriate and timely corrective actions can be developed prior to production and fielding of the system, if required. The ultimate goal is to ensure the weapon systems and support systems the Department of the Air Force acquires and maintains meet operational capability requirements.

1.1. Integrated Life Cycle Management is the acquisition and sustainment framework for all Department of the Air Force acquisition programs as outlined in AFI 63-101/20-101, *Integrated Life Cycle Management*. It governs all aspects of infrastructure, resource management, and business systems necessary for successful development, testing, production, fielding, and sustainment of materiel and services to satisfy validated warfighter requirements. The T&E community is a key stakeholder in the Integrated Life Cycle Management framework and works in concert with leadership, developers, acquirers, integrators, users, and sustainers to ensure success.

1.2. There are two overarching categories of DoD testing: developmental testing and operational testing. Developmental testing is conducted throughout the acquisition and sustainment processes to assist engineering design and development, verify developer compliance with contractual requirements, and verify operational suitability and effectiveness of the system in development. Operational testing is an independent assessment of the operational effectiveness and suitability of the system under development. Integrated testing is not a separate category, but a concept for test management to be used in developing an overarching test strategy to maximize the use of assets and reduce test time and risk. Integrated testing is the collaborative planning and execution of developmental and operational test activities and events to provide shared data. This supports the independent analysis, evaluation, and reporting by all stakeholders, particularly systems engineering, developmental (contractor and government), and operational T&E communities. Live fire T&E is used to assess the vulnerability, lethality and survivability of the system. Live fire T&E shall be treated as an integrated test activity to include both developmental and operational testing.

2. Policy. Organizations with T&E roles and responsibilities will:

2.1. Operate, maintain, and improve T&E facilities, including the Major Range and Test Facility Base and the United States Air Force Test Pilot School, in support of Air Force, Space Force, DoD, and other user requirements.

2.2. Continually evaluate test infrastructure requirements and capabilities to ensure critical test infrastructure is available when needed, avoiding unnecessary duplication of test resources in accordance with DoDD 3200.11.

2.3. Support the Office of the Secretary of Defense-sponsored JT&E Program through participation in all phases of its process in accordance with DoDI 5010.41.

2.4. Maintain a Weapon System Evaluation Program for continuous evaluation of fielded weapon system capabilities.

2.5. Conduct T&E activities to:

2.5.1. Reduce program risk by identifying and helping to resolve design deficiencies as early as possible and throughout the acquisition process.

2.5.2. Provide essential information to decision makers and determine whether systems are operationally effective, suitable, survivable, and safe for intended use. T&E results will inform the decision process before proceeding beyond low-rate initial production and/or fielding as stated in Title 10 USC § 2366.

2.5.3. Support the modification, upgrade, and continued sustainment of fielded systems.

2.5.4. Be objective and free from bias and outside influences. Report through a chain of command separate from the developing or acquiring organization to enhance objectivity and to mitigate external influences.

2.5.5. Use integrated testing concepts to the maximum extent practical.

2.5.6. Provide T&E expertise and insight to acquisition professionals and requirements developers to help ensure user-provided operational requirements and concepts are clear, measurable, and testable.

2.5.7. Use only verified, validated, and accredited modeling and simulation tools when appropriate to assess performance, reduce risk, or mitigate resource limitations. However, dedicated operational T&E will not evaluate exclusively using computer modeling, simulation, or an analysis of information contained in program documents.

2.5.8. Incorporate appropriate intelligence information into T&E planning to accurately portray threat environments, capabilities, and vulnerabilities.

3. Roles and Responsibilities. All Department of the Air Force T&E organizations must plan and conduct T&E in collaboration with other program stakeholders. As such, the following organizational responsibilities are established.

3.1. The Director of Test and Evaluation (AF/TE):

3.1.1. Serves as the chief T&E advisor to the Department of the Air Force senior leadership.

3.1.2. Acts as the lead and point of contact for the Department of the Air Force Foreign Materiel Program.

3.1.3. Develops T&E policy, establishes test guidance, advocates for test resources to support weapons system development, and resolves developmental and operational test programmatic issues.

3.1.4. Provides guidance, direction, and oversight for all matters pertaining to the formulation, review, and execution of T&E plans, policies, programs, and budgets.

3.1.5. Manages the test infrastructure for the Department of the Air Force, including for the Space Force through a cooperative arrangement with Space Force and the Office of the Chief of Space Operations (Space Staff) to ensure adequate T&E facilities, resources, and expertise are available to support system life cycle T&E activities.

3.1.6. Establishes and, in cooperation with the Deputy Chief of Staff for Intelligence, Surveillance Reconnaissance, and Cyber Effects Operations (AF/A2/6), implements the Foreign Materiel Program for the Department of the Air Force to support DoD's program in accordance with DoDD S-3325.01.

3.1.7. Serves as the Department of the Air Force test enterprise cross-functional authority responsible for strategic oversight and force development advocacy related to T&E occupational requirements for both the Air Force and Space Force (through its cooperative arrangement with SF/TE and the Space Staff). The cross-functional authority will identify cross-functional billets and associate the proficiency levels and the training and experience development needed to successfully conduct the T&E mission.

3.1.8. Advocates for test resources that support capability development prototyping and experimentation activities.

3.2. The Assistant Secretary of the Air Force for Acquisition, Technology and Logistics (SAF/AQ):

3.2.1. Serves as the Service Acquisition Executive.

3.2.2. Ensures T&E responsibilities are documented in system program documentation and carried out accordingly.

3.2.3. Ensures that all major defense acquisition programs are supported by a chief developmental tester and by a lead developmental T&E organization.

3.3. Each Air Force major command (MAJCOM) and Space Force field command that executes developmental T&E:

3.3.1. Implements policies for developmental T&E and manages the test infrastructure.

3.3.2. Conducts required vulnerability, survivability, and lethality tests sufficiently early in the development phase of applicable programs to allow test results to influence system design prior to major production or modification decisions as stated in 10 USC § 2366.

3.4. The Operational Test Agency:

3.4.1. Reports directly to the chief of the military service on operational T&E programs as designated.

3.4.1.1. The Air Force Operational Test and Evaluation Center (AFOTEC) reports directly to the Chief of Staff of the Air Force on Air Force programs. AFOTEC is established as the Air Force's independent Operational Test Agency.

3.4.1.2. AFOTEC will report to the Chief of Space Operations on Space Force programs. AFOTEC will continue to act as the Operational Test Agency for space systems until the Space Force establishes its own independent Operational Test Agency.

3.4.2. Plans, conducts, and reports on operational T&E for Major Defense Acquisition Programs, programs on the T&E oversight list managed by Director, Operational Test and Evaluation (DOT&E) and jointly used by Under Secretary of Defense for Research and Engineering (USD(R&E)) as per DoDI 5000.89, and other high-interest Department of the Air Force programs as directed. The T&E oversight list can be located on the Office of the Secretary of Defense DOT&E website (<https://www.dote.osd.mil>).

3.4.3. Publishes reports on the results of these evaluations and provides evaluations of each system's overall mission capability as determined by effectiveness, suitability, and other operational considerations.

3.4.4. Identifies and advocates for operational test infrastructure and workforce needs to the implementing major and field commands and AF/TE.

3.5. Air Force MAJCOMs and Space Force field commands that execute operational T&E:

3.5.1. In addition to supporting the joint warfighter, are responsible for the operational testing of systems that are not the responsibility of the service designated Operational Test Agency.

3.5.2. Plan, conduct, and report on operational T&E for programs of record in which the service designated Operational Test Agency is not the lead operational test organization; select programs on the T&E oversight list and other high-interest Department of the Air Force programs as directed.

3.5.3. When the Operational Test Agency declines or is unable to do so, conduct operational test activities (such as force development evaluations) and develop, warfighter tactics, techniques, and procedures.

3.5.4. Publish reports on the results of these evaluations, characterizing the system's overall mission capability as determined by effectiveness, suitability, and other operational considerations.

3.5.5. Execute Weapon System Evaluation Program activities in a realistic operational environment to assess weapon system effectiveness, identify deficiencies, and recommend corrective actions.

3.5.6. Identify and advocate for operational test infrastructure and workforce needs to the implementing Air Force MAJCOMs, Space Force field commands, and AF/TE.

3.5.7. Assist the implementing commands with maintaining test infrastructure to support the Department of the Air Force test enterprise.

John P. Roth
Acting Secretary of the Air Force

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DoDI 5000.89, *Test and Evaluation*, 19 November 2020
DoDD 5000.01, *The Defense Acquisition System*, 9 September 2020
DoDD S-3325.01, *Foreign Materiel Program (FMP) (U)*, 30 December 2011
DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, 23 January 2020
DoDI 5000.75, *Business Systems Requirements and Acquisition*, 2 February 2017
DoDI 5010.41, *Joint Test and Evaluation (JT&E) Program*, 12 September 2005
AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020
10 USC § 9081
AFI 63-101/20-101, *Integrated Life Cycle Management*, 30 June 2020
10 USC § 2366
DoDD 3200.11, *Major Range and Test Facility Base (MRTFB)*, 27 December 2007

Prescribed Forms

None

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFI—Air Force Instruction
AFOTEC—Air Force Operational Test and Evaluation Center
DAFI—Department of the Air Force Instruction
DAFPD—Department of the Air Force Policy Directive
DoD—Department of Defense
DoDD—Department of Defense Directive
DoDI—Department of Defense Instruction
DOT&E—Director, Operational Test and Evaluation
FMP—Foreign Materiel Program
JT&E—Joint Test and Evaluation
MAJCOM—Major Command
MRTFB—Major Range Test Facility Base

OPR—Office of Primary Responsibility

T&E—Test and Evaluation