

**BY ORDER OF THE COMMANDER  
AIR FORCE NUCLEAR WEAPONS  
CENTER**



**DEPARTMENT OF THE AIR FORCE  
INSTRUCTION 99-103**

**AIR FORCE MATERIAL COMMAND  
Supplement**

**AIR FORCE NUCLEAR WEAPONS CENTER  
Supplement**

**9 APRIL 2024**

**Test and Evaluation**

**CAPABILITIES-BASED  
TEST AND EVALUATION**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**(Added-AFNWC)** This publication supplements and extends the guidance of DODI5000.89\_DAFI99-103\_AFMCSUP, *Capabilities-Based Test and Evaluation*. This publication applies to all Air Force Nuclear Weapons Center (AFNWC) units. This publication does not apply to the Air National Guard (ANG) or the Air Force Reserve Command (AFRC) except for units under AFMC Operational Control. AFNWC units geographically separated from Kirtland Air Force Base (KAFB) shall comply with this supplement in addition to local guidance at their host base set forth in their Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU). In the event of a conflict between this supplement and local MOA guidance, a proposed solution shall be negotiated at the unit working level; the proposed solution shall be coordinated with the AFNWC Center Test Authority (CTA) and at an appropriate level with the Host Unit. The agreement, deviation, or waiver for the agreed upon solution shall be approved by the AFNWC Commander (CC) and the Host Unit CC or their delegated authority. This supplement may be supplemented at any level, but all supplements must be routed to the AFNWC CTA for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through

appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

### ***SUMMARY OF CHANGES***

**(Added-AFNWC)** This document has had several changes made to it. This rewrite aligns the Center Supplement with the current revision to DODI5000.89\_DAFI99-103\_AFMCSUP. Paragraphs were re-numbered and moved to align with the new format in the DODI5000.89\_DAFI99-103\_AFMCSUP. Of note, this document now clarifies guidance and processes regarding Safety Review Boards (SRB), Technical Review Boards (TRB), and Test Readiness Reviews (TRR). It also provides updated guidance and requirements for programs using an Alternate Lead Developmental Test Organization (LDTO).

**1.1. (AFNWC)** AFNWC has management and engineering responsibility when a proposed test involves the evaluation of designs, modifications, upgrades, software changes or qualification, nuclear certification, aging surveillance testing, or changes that fall under the management responsibility of the AFNWC Directors/Program Managers.

2.17. e.(1). **(Added-AFNWC)** The PEO or MDA (within the AFNWC) may delegate the Mission-Oriented Test Certification Official duties to the Center Test Authority for ACAT III Programs that are both not on the OSD oversight list and have a MAJCOM assigned OTO.

2.18. f.(4). **(Added-AFNWC)** If the technical or safety risk level for a test rises to medium or high for a program utilizing an Alternate LDTO, coordinate for the designation of a LDTO from the approved AFMC LDTO candidate list.

2.18. f.(5). **(Added-AFNWC)** If testing is determined to be low safety and technical risk for a program utilizing an Alternate LDTO, appoint a Test Execution Authority (TEA) to approve testing at no lower than the Materiel Leader, Division Chief, or Squadron Commander-equivalent for each test event.

2.18. i.(2). **(Added-AFNWC)** Test activities and resources required to accomplish Nuclear Certification activities will be documented in the specific program's TEMP.

2.18. n.(1). **(Added-AFNWC)** Ensure the Nuclear Certification Requirements Plan is aligned.

2.18. n.(2). **(Added-AFNWC)** Ensure test requirements needed to obtain Mission Worthiness certification are aligned. Coordinate with AFNWC, Nuclear Command, Control and Communications Integration Directorate (NC) to determine if any test requirements apply.

2.18. jj. **(Added-AFNWC)** Coordinate with the CTA on all T&E related documentation for all programs to include: Test and Evaluation Master Plans, Integrated Test Team Charters, Nuclear Certification Requirements Plans, and Mission-oriented Test Readiness Certifications prior to the start of Operational Test and Evaluation.

2.18. kk. **(Added-AFNWC)** Coordinate with the CTA office for approval of all test plans and test reports for programs utilizing an Alternate Lead Developmental Test and Evaluation Organization (Alternate LDTO).

2.18. ll. **(Added-AFNWC)** Ensure all items requiring nuclear certification are certified IAW AFI 63-125, *Nuclear Certification Program*. If assistance is needed, contact the Nuclear Technology and Integration Directorate (NT).

2.20. s. **(Added-AFNWC)** If at any time during the execution of the test program under the purview of an Alternate LDTO, the safety and/or technical risk rises above Low for a specific test event or the test program, the Test Manager will immediately engage with the CTA. The CTA will coordinate with AFNWC/SE to determine the best path forward to mitigate the risk.

2.22. ff. **(Added-AFNWC)** A representative for Nuclear Certification Testing shall be included on the Integrated Test Team when Nuclear Certification is required.

2.22. gg. **(Added-AFNWC)** A representative for Mission Worthiness certification requirements (AFNWC/NC) shall be included on the Integrated Test Team, if applicable.

2.24. c.(1). **(Added-AFNWC)** The CTA will have a representative on all Integrated Test Teams.

2.24. d.(1). **(Added-AFNWC)** For programs utilizing an Alternate LDTO, the CTA will approve candidates to chair TRBs and SRBs in coordination with AFNWC Safety (SE) (**Paragraph 2.26**) via memorandum at the start of the calendar year.

2.24. i. **(Added-AFNWC)** Assist in developing Nuclear Weapon Subsystem Test plans and Test and Evaluation Master Plans for each nuclear weapon and weapon delivery system assigned to the AF IAW DoDM5030.55\_AFMAN63-103, *DOD Procedures for Joint DOD-Department of Energy/National Nuclear Security Administration (DOE/NNSA) Nuclear Weapon Life-Cycle Activities*.

2.24. m. **(Added-AFNWC)** Approve and sign all test plans and subsequent test reports for programs using an Alternate LDTO.

2.24. n. **(Added-AFNWC)** For programs utilizing an Alternate LDTO, participate in TRR boards as a voting “go/no-go” member.

**2.25. (Added-AFNWC) Execution Directors.** This section applies to Directors for the following AFNWC Directorates: NC, Air Delivered Capabilities Directorate (ND), Minuteman III Systems Directorate (NM), NT, and the Sentinel Systems Directorate (NX). Each Director will:

2.25. a. **(Added-AFNWC)** For programs utilizing an Alternate LDTO, nominate potential TRB and SRB chairs to the AFNWC CTA and AFNWC/SE (SRB only) for approval on an annual basis each January by letter, or when changes in appointments occur. Candidates must be independent government employees and possess the technical qualifications to perform these duties. TRB candidates should be Acquisition Professional Development Program (APDP) “Practitioner” certified in Test and Evaluation (T&E). SRB chair qualifications can be found in AFI 91-202\_AFMCSUP, *The US Air Force Mishap Prevention Program*.

2.25. b. **(Added-AFNWC)** In addition to the CTA, approve test plans for test activities utilizing an Alternate LDTO. This authority may be delegated to an O-6/GS-15 equivalent level within the directorate.

**2.26. (Added-AFNWC) AFNWC/SE .** For programs utilizing an Alternate LDTO, AFNWC/SE will, in conjunction with the CTA approve candidates to chair SRBs to ensure thorough assessment of test plans for safe conduct and assign SRB members as appropriate. For additional Safety Office responsibilities, refer to DAFI 91-202, *The US Air Force Mishap Prevention Program*.

3.12. b.(2). **(Added-AFNWC)** The TRB chair will produce a document (E-mail, letter, form, memo or report) identifying the board members and detailing the technical risks associated with the test event. The document will include risk, details on potential mitigation measures, the original risk level, and risk level after potential mitigation. Supporting information can be included as an attachment to the document. The TRB document will be used to inform the Test Readiness Review (TRR) and, for programs utilizing an Alternate LDTO, the AFNWC CTA, of technical risks associated with the test event. Refer to AFI 63-101\_20-101, *Integrated Life Cycle Management*, for guidance on completing this risk matrix. For programs with a formally assigned LDTO, TRB processes and scope established by the LDTO should be utilized.

3.12. b.(2).(a). **(Added-AFNWC)** For programs utilizing an Alternate LDTO, the TRB chair must meet the requirements in **Table 4**. The CTA is the waiver authority.

**Table 4. (Added-AFNWC) Alternate LDTO TRB Chair Requirements.**

Requirements			
Instruction Review	TRB Experience	Training	Validation
Read AFI 91-202, AFMC Sup (16.2)	(Before chairing ground TRB) Attend two ground TRBs	APDP T&E Practitioner Certification	Nomination memo (director level)
Read DAFI 99-103 AFMC Sup (2.20.i. and 3.12)	(Before chairing flight TRBs) Attend two flight TRBs	Minimum of four years of T&E experience	CTA approval letter
Read DAFI 99-103 AFNWC Sup (3.12.b.(2).)	Chair one TRB under mentorship of qualified TRB Chair		

3.12. c.(1). **(Added-AFNWC)** The SRB chair will produce a document (E-mail, letter, form, memo or report) detailing the safety risks associated with the test event. The document will include at a minimum, SRB date, test plan identification, list of SRB members and attendees, action items or items to be noted or document (if applicable), overall test safety risk determination, and the determination of risk acceptance authority and approval recommendations. The SRB document will be used to inform the TRR and, for programs utilizing an Alternate LDTO, the AFNWC CTA, of safety risks associated with the test event. Refer to AFI 91-202\_AFMCSUP, for additional guidance on completing the test's SRB process. For programs with a formally assigned LDTO, SRB processes and scope established by the LDTO should be utilized.

5.3. a.(2). **(Added-AFNWC)** A TRR shall be conducted prior to the test event (recommended no less than seven days). The TRR may be held remotely, but should be attended by the TRB Chair, SRB Chair, Chief Developmental Tester/Test Manager, Test Director, LDTO Representative, and any organization or group that is providing an essential asset, range, people, equipment, etc. for the successful execution of the test. If the TRR Chair approves, the TRR may be completed electronically without needing a meeting. The TRR may be held over multiple meetings for complex test events to address risks to resource deployment, support unit commitments, and any other areas before final test execution approval. For programs utilizing an Alternate LDTO, the CTA will be a voting "go/no-go" member at TRR boards.

5.3. a.(2).(a). **(Added-AFNWC)** TRR Package. For any test events having an AFNWC-level TRR board vote, the TRR package will be reviewed by the CTA. For test events having an Alternate LDTO designation, the completed TRR package will be filed with the CTA. The following will be considered the minimum content for a TRR Package:

5.3. a.(2).(a).1. **(Added-AFNWC)** An approved and signed test plan.

5.3. a.(2).(a).2. **(Added-AFNWC)** An approved and signed TRB document.

5.3. a.(2).(a).3. **(Added-AFNWC)** An approved and signed SRB document.

5.3. a.(2).(a).4. **(Added-AFNWC)** Go/No Go Criteria and status of each.

5.3. a.(2).(a) 5. (**Added-AFNWC**) Approval to proceed from the TEA.

5.3. a.(2).(b). (**Added-AFNWC**) While no specific format is required, a TRR Template can be downloaded from the AFNWC/EZT SharePoint site: <https://org2.eis.af.mil/sites/21328/EZT/default.aspx> and tailored to the needs of the test program.

JOHN P. NEWBERRY, Major General, USAF  
Commander  
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**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 91-202\_AFMCSUP, *The US Air Force Mishap Prevention Program*, 31 March 2022

DAFI 91-202, *The US Air Force Mishap Prevention Program*, 12 March 2020

DODI5000.89\_DAFI99-103\_AFMCSUP, *Capabilities-Based Test and Evaluation*, 17 October 2022

DoDM5030.55\_AFMAN63-103, *DOD Procedures for Joint DOD-Department of Energy/National Nuclear Security Administration (Doe/NNSA) Nuclear Weapon Life-Cycle Activities*, 10 Aug 2018

***Prescribed Forms***

None

***Adopted Forms***

AF Form 847, Recommendation for Change of Publication

***Abbreviations and Acronyms***

**AFNWC**—Air Force Nuclear Weapons Center

**AFRC**—Air Force Reserve Command

**AFRIMS**—Air Force Records Information Management System

**ANG**—Air National Guard

**APDP**—Acquisition Professional Development Program

**CC**—Commander

**CTA**—Center Test Authority

**IAW**—In accordance with

**KAFB**—Kirtland Air Force Base

**LDTO**—Lead Developmental Test Organization

**MOA**—Memorandum of Agreement

**MOU**—Memorandum of Understanding

**NC**—Nuclear Command, Control and Communications Integration Directorate

**ND**—Air Delivered Capabilities Directorate

**NM**—Minuteman III Systems Directorate

**NT**—Nuclear Technology and Integration Directorate

**NX**—Sentinel Systems Directorate

**RDS**—Records Disposition Schedule

**SE**—The Air Force Nuclear Weapons Center, Safety Directorate

**SRB**—Safety Review Board

**TRB**—Technical Review Board

**TRR**—Test Readiness Review