BY ORDER OF THE COMMANDER ROBINS AIR FORCE BASE

ROBINS AIR FORCE BASE INSTRUCTION 99-103

3 DECEMBER 2021

Test and Evaluation

TEST AND EVALUATION PROCESS



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This Robins Air Force Base Instruction (RAFBI) implements Air Force Instruction (AFI) 99-103, Capabilities Based Test and Evaluation, and the Air Force Materiel Command (AFMC) supplement to that instruction. This instruction provides guidance and procedures for all test and evaluation (T&E) conducted by the Robins Center Test Authority (AFLCMC/EZPR-CTAR). This instruction applies to all personnel assigned or attached to Air Force Life Cycle Management Center (AFLCMC) and Air Force Sustainment Center (AFSC) organizations at Robins AFB. It also applies to those Robins AFB Active Duty, Air National Guard, and Air Force Reserve units supporting flight and ground testing for which the Robins Center Test Authority is responsible. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) Form 847, Recommendation for Change of Publication; route AF Forms 847 from the field through the 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 AFI 33-322, Records Management and Information Governance *Program*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records located Disposition Schedule (RDS) https://www.my.af.mil/afrims/afrims/afrims/rims.cfm. publication This mav supplemented at any level. Requests for waivers must come through the chain of command from the commander of the office seeking relief from compliance. Waiver requests must be submitted to the OPR; waiver authority has not been delegated. The waiver approval authority for all compliance items within this publication are at Wing Level (Tier T-3).

SUMMARY OF CHANGES

This publication has been revised to align with changes to DoD, Air Force, AFMC, and AFLCMC guidance. It clarifies Test and Evaluation (T&E) roles and responsibilities at Robins AFB to support the Robins CTA role as an AFMC approved Lead Developmental Test and Evaluation Organization (LDTO) and the Robins CTA Chief as the Robins AFB AFLCMC T&E Site Senior Functional. This includes detailing the Robins AFB processes for the Technical Review Boards (TRB), the Test Program Introductions (TPI), the Test and Evaluation Working Group (T&E Working Group), and the Customer Review Board.

Chapter 1

INTRODUCTION

- **1.1. Overview.** Test and Evaluation (T&E) is a technical risk-reduction tool to use in acquisition/sustainment program/project decision making. This instruction provides local guidance for a disciplined approach to T&E. Air Force Materiel Command (AFMC) identified the Robins Center Test Authority (CTA) as an approved Lead Developmental Test and Evaluation Organization (LDTO) candidate for low risk, low cost, short duration developmental T&E (DT&E), qualification T&E (QT&E), and sustainment testing.
- **1.2. Purpose.** This instruction outlines the process for testing conducted by the AFLCMC Robins CTA (AFLCMC/EZPR-CTAR). The process is designed to manage the technical and safety risk inherent in conducting T&E. See **Attachment 1** for a glossary of references and supporting information.

1.3. Applicability.

- 1.3.1. The procedures outlined in this instruction apply to all Robins CTA test efforts when designated as an LDTO or Participating Test Organization (PTO).
- 1.3.2. Activities that are a normal part of the depot maintenance function [i.e. routine Functional Check Flights (FCFs), Acceptance Check Flights (ACFs), Unprogrammed Depot Level Maintenance (UDLM), or engine runs after Programmed Depot Maintenance (PDM)] are not governed by this instruction. FCF and ACF missions/procedures specifically required as part of an approved test plan are governed by this instruction.

Chapter 2

ROLES AND RESPONSIBILITIES

- 2.1. Director, Engineering and Technical Management Directorate Operating Location-Robins, Air Force Sustainment Center (AFSC/EN OL-Robins):
 - 2.1.1. Approves a list of qualified Technical Review Board (TRB) chairs for Robins CTA test programs.
- **2.2. Program Manager (PM):** The PM is also known as the Single Manager (SM) or System Program Manager (SPM). The PM/SM/SPM is typically the division chief responsible for the acquisition, sustainment, or maintenance of the applicable system. In addition to the responsibilities stated in AFI 99-103/AFMC Supplement and the AFLCMC Standard Process for *Test Plan Reviews and Test Execution*, the PM will:
 - 2.2.1. Coordinate with the PEO and AFMC/A3 for designation of the Robins CTA as LDTO for applicable program office developmental/qualification/sustainment test efforts to support acquisition or sustainment programs/projects for the applicable system.
 - 2.2.2. Ensure funding is available to support Robins CTA test projects when the Robins CTA is designated as LDTO. This funding will include, but is not limited to, TDY funding to support Robins CTA travel for test projects and funding to support test instrumentation, if required.
- **2.3. Integrated Test Team (ITT):** In addition to the responsibilities stated in AFI99-103/AFMC Supplement and the AFLCMC Standard Process for *Test Plan Reviews and Test Execution*, the ITT will:
 - 2.3.1. Include the Robins CTA Chief as a member of the ITT and as a signatory on the ITT charter.
 - 2.3.2. Provide a copy of the approved ITT charter to the Robins CTA.
- **2.4. Robins CTA:** In addition to the responsibilities stated in AFI 99-103/AFMC Supplement and the AFLCMC Standard Process for *Test Plan Reviews and Test Execution*, the Robins CTA will:
 - 2.4.1. Maintain a list of qualified Robins AFB chief engineers that are authorized, in writing by the Director, AFSC/EN OL-Robins, to chair TRBs for Robins CTA test projects.
 - 2.4.2. Provide a test plan technical review guide to all authorized TRB chairs to aid them in conducting reviews.
 - 2.4.3. The Robins CTA Chief will:
 - 2.4.3.1. Sign Robins CTA test plans and AFLCMC Forms 5028.
 - 2.4.3.2. Approve final Robins CTA test reports.
 - 2.4.3.3. Act as TRB chair for AFLCMC Detachment 4 (Det 4) U-2S test programs.
 - 2.4.3.4. Act as TRB chair for other test programs as requested and agreed when the Robins CTA is not designated as an LDTO.
 - 2.4.3.5. Act as the Robins AFB AFLCMC T&E Site Senior Functional IAW AFMCI 36-2645.

2.4.3.6. Chair Test and Evaluation Working Group.

2.5. TRB Chairs:

- 2.5.1. The Robins CTA maintains a list of Robins AFB chief engineers that are authorized, in writing by AFSC/EN-R, to chair TRBs for Robins CTA test projects.
- 2.5.2. All authorized TRB chairs will be provided by the Robins CTA with a test plan technical review guide to aid them in conducting reviews.
- 2.5.3. Chairing TRBs for Robins CTA test projects is an additional duty. The Robins CTA will request a TRB chair for each specific test effort, but the requested individual can decline if primary workload/TDY/leave does not permit accepting the technical review workload.
- 2.5.4. The assigned TRB chair will be provided sufficient time and information to complete the test plan technical review.
- 2.5.5. After completing the technical review, the TRB chair will designate the technical risk level of the test plan on the AFLCMC Form 5028, specify any technical risk mitigation (if required), and sign the form.

2.6. Robins Air Force Test Center Representative (AFTC Rep):

- 2.6.1. The Robins AFTC Rep is assigned to AFTC/ENT at Edwards AFB and is located at Robins AFB within the Robins CTA IAW a Memorandum of Agreement (MOA) between AFLCMC/EZP and AFTC/ENT. The Robins AFTC Rep will:
- 2.6.2. Provide AFTC with insight into Robins AFB test activities.
- 2.6.3. Review all Robins CTA test/safety plans for adequacy of test methodology and proper evaluation/mitigation of test technical/safety risk. Review other test/safety plans, as required.
- 2.6.4. Provide an independent assessment of test technical and safety risk for Robins CTA test programs through completion of a Test Program Introduction (TPI). Ensures AFTC comments on risk assessments, test plans, reviews, execution, and reports are brought to the attention of the appropriate program office and the Robins CTA.
- 2.6.5. Assist program offices in the development and coordination of test requirements for the appropriate test organization.

2.7. AFLCMC Robins AFB Senior System Safety Functional (AFLCMC/SES):

- 2.7.1. Manages the test safety review process for Robins CTA tests IAW AFI 99-103/AFMC Supplement and AFI 91-202/AFMC Supplement/AFLCMC Supplement.
- 2.7.2. Assists Robins CTA in assessing and mitigating test safety risks.
- 2.7.3. Chairs, or coordinates for an appropriate chair, for the safety review or Safety Review Board (SRB) for tests conducted by the Robins CTA.
- 2.7.4. Designates the safety risk level of the test and signs the AFLCMC Form 5028.
- **2.8. Test and Evaluation Working Group (T&E Working Group):** The Test and Evaluation (T&E) Working Group serves as a forum for the Robins CTA and designated program office test managers/test points of contact to discuss a broad range of test issues related to policy, process, training, and infrastructure for the programs/projects and workforce at Robins AFB.

- 2.8.1. Chaired by the Robins CTA Chief.
- 2.8.2. Meets on a regular and recurring basis, as scheduled by the Robins CTA.
- 2.8.3. Provides status of T&E issues and recommendations to the Robins Engineering Advisory Board on a regular basis.
- 2.8.4. T&E Working Group members will act as a liaison for T&E issues for their program office/branch.
- 2.8.5. Develops and maintains a standing charter. See Attachment 2.

Chapter 3

TEST PROJECT MANAGEMENT

- **3.1. Additional Test Plan Review.** In addition to the requirements of the AFLCMC Standard Process for *Test Plan Reviews and Test Execution*, the following review will be conducted for all Robins CTA test plans.
 - 3.1.1. Customer Review Board.
 - 3.1.1.1. The Robins CTA will set up and conduct a Customer Review Board to fully review the final draft test plan with the program office Test Integrated Product Team (TIPT) and other applicable organizations to ensure the test plan addresses all program office system, technical, and test requirements.
 - 3.1.1.2. The Customer Review Board will include the test manager, the project manager, the project engineer, Robins CTA representatives, and the Robins AFTC Rep. It may also include the OT&E Organization representative (if applicable), contractor representative (if applicable/required), PTO representative (if applicable), software engineering squadron representative (if applicable), host unit operations/maintenance representatives (if applicable), AFLCMC/SES (if required), and any other participation requested by the program office or the Robins CTA.

LINDSAY C. DROZ, Colonel, USAF Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 99-1, Test and Evaluation, 21 May 2021

AFI 99-103, Capabilities-Based Test and Evaluation, 17 Dec 2020

AFI 99-103/AFMC Supplement, Capabilities-Based Test and Evaluation, 19 Jun 2020

AFI 91-202, The US Air Force Mishap Prevention Program, 12 Mar 2020

AFI 91-202/AFMC Supplement, The US Air Force Mishap Prevention Program, 17 May 2017

AFI 91-202/AFMC Supplement/AFLCMC Supplement, *The US Air Force Mishap Prevention Program*, 10 Apr 2018

AFMCI 36-2645, Senior Functional Roles and Responsibilities, 20 Jun 2014

Adopted Forms

AF Form 847, Recommendation for Change of Publication

Abbreviations and Acronyms

ACF—Acceptance Check Flight

AFB—Air Force Base

AFI—Air Force Instruction

AFLCMC—Air Force Life Cycle Management Center

AFLCMC/SES—Robins AFB AFLCMC Senior System Safety Functional

AFMC—Air Force Materiel Command

AFMCI—Air Force Materiel Command Instruction

AFSC—Air Force Sustainment Center

AFSC/EN OL-Robins —Engineering and Technical Management Directorate Operating Location-Robins, Air Force Sustainment Center

AFTC—Air Force Test Center

AFTC Rep—Air Force Test Center Representative

CC—Commander

CTA—Center Test Authority

DoD—Department of Defense

DT&E—Developmental Test and Evaluation

EAB—Engineering Advisory Board

FCF—Functional Check Flight

IAW—In Accordance With

ITT—Integrated Test Team

LDTO—Lead Developmental Test Organization

MDAP—Major Defense Acquisitions Programs

MOA—Memorandum of Agreement

OPR—Office of Primary Responsibility

&E—Operational Safety, Suitability, & Effectiveness (OSS&E)

OTA—Operational Test Agency

OT&E—Operational Test and Evaluation

OTO—Operational Test Organization

PEO—Program Executive Officer

PDM—Programmed Depot Maintenance

PM—Program Manager

PTO—Participating Test Organization

QT&E—Qualification Test and Evaluation

RAFBI—Robins Air Force Base Instruction

SM—Single Manager

SRB—Safety Review Board

T&E—Test and Evaluation

T&E Working Group—Test and Evaluation Working Group

TIPT—Test Integrated Product Team

TRB—Technical Review Board

Terms

Air Force Test Center Representative (AFTC Rep)—An AFTC advisor/liaison to Robins AFB.

Developmental Testing and Evaluation (DT&E)—A step in the acquisition process that focuses on the objective demonstration of acceptable technical risk by assessing system requirements.

Engineering Advisory Board (EAB)—A board chaired by the Director, Engineering and Technical Management Directorate Operating Location-Robins, Air Force Sustainment Center, to discuss challenges/updates presented by various site engineering and program offices.

Integrated Test Team (ITT)—A team within each program office responsible for the overarching T&E strategies and policies for the programs/projects managed by the program office. The Robins CTA will be a member of each ITT.

Integrated Test Team Charter—A document which defines the limits and scopes of the ITT.

Lead Developmental Test Organization (LDTO)—A designated test organization qualified to conduct and/or responsible for overseeing DT&E for a program/project.

Operational Test and Evaluation (OT&E)—A step in the acquisition process that evaluates the effectiveness and suitability of systems operating under realistic conditions. Determines whether the system meets the minimum acceptable operational performance requirements.

Program Executive Officer (PEO)—A military or civilian official who has responsibility for directing several Major Defense Acquisition Programs (MDAPs) and for assigned major system and non-major system acquisition programs. The PEO coordinates on LDTO designations.

Program Manager (**PM**)—The designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM is accountable for credible cost, schedule, and performance reporting and has total life cycle system management authority. Also known as the System Program Manager or Single Manager.

Project Engineer—Designated individual who oversees the technical aspects of sustainment actions.

Project Manager—Designated individual who oversees the budget, timeline, and overall execution of sustainment actions.

Qualification Test and Evaluation (QT&E)—A tailored type of DT&E performed by an LDTO primarily for commercially available off-the-shelf items, non-developmental items, and government furnished equipment.

Robins Center Test Authority (Robins CTA)—T&E experts providing advice to program office/site leadership on T&E issues, as well as DT&E/QT&E support to Robins AFLCMC Program Managers and other Robins AFB organizations as an LDTO.

Safety Review Board (SRB)—An independent review of the safety risks of the test plan resulting in the assignment of an overall safety risk.

Single Manager (SM)—See Program Manager.

Technical Review Board (TRB)—An independent review of the technical risks of the test plan, resulting in an assignment of an overall technical risk level.

Test and Evaluation Working Group (T&E Working Group)—A chartered forum for program office Test Managers/designated test points of contact to discuss a broad range of test issues related to policy, process, training, and infrastructure issues for the programs/projects and workforce at Robins AFB.

Test Manager—A designated, T&E qualified government individual that coordinates the planning, management, and oversight of all test activities for a PM for Acquisition Category II programs and below.

Test Plan—Governing, overarching document approved for conducting a specific test.

Test Safety Risk Level—The level of risk that arises from test related activities.

Test Technical Risk Level—The level of risk that arises from activities related to technology, design and engineering, manufacturing, and the critical technical process of test, production, and logistics.

Attachment 2

TEST AND EVALUATION (T&E) WORKING GROUP CHARTER EXAMPLE

Figure A2.1. Test And Evaluation (T&E) Working Group Charter Example.

1. Purpose:

The Test and Evaluation (T&E) Working Group serves as a forum for program office Test Managers/designated test points of contact to discuss a broad range of test issues related to policy, process, training, and infrastructure issues for the programs/projects and workforce at Robins AFB. This forum will serve as an effective mechanism to address and resolve test issues across the base, between AFLCMC and AFSC organizations at the base, and between the Robins Center Test Authority (CTA) and the program offices.

Topics briefed/discussed will be for informational and decision making purposes. The goal is to increase communication, T&E awareness, and provide a forum to work common T&E policy/processes. In addition, this forum will provide a means to highlight requirements for new T&E infrastructure and processes. If appropriate, decisions and/or issues will be sponsored to the Robins Engineering Advisory Board and subsequently to AFLCMC and/or AFSC. All other actions will be the result of the decision process within the T&E Working Group.

2. Background:

AFLCMC/EZPR-CTAR is designated as the Robins CTA. The Robins CTA function is required by AFI 99-103/AFMC Supplement. The Robins CTA is responsible for advising AFLCMC Program Managers and applicable Robins AFB AFSC organizations on T&E policy/issues. The Robins CTA will oversee the site test processes and coordination of T&E resources. In order to effectively work issues regarding T&E for Robins AFB, a working group with members identified from within each program office/group-level organization is needed. Issues and requirements would flow from this working group to the Engineering Advisory Board first, then to AFLCMC and/or AFSC for approval.

3. Oversight:

The T&E Working Group works with and receives guidance directly from the Chief, Robins CTA (AFLCMC/EZPR-CTAR).

4. <u>Scope</u>:

The T&E Working Group will apply a Robins AFB perspective to address and resolve T&E issues and workforce management/development concerns. Topics that will be discussed include, but are not limited to the following:

4.1. Site-wide T&E policies and processes

- 4.2. T&E in the Airworthiness Process
- 4.3. T&E in Operational Safety, Suitability, and Effectiveness (OSS&E)
- 4.4. Force development, training, and T&E awareness
- 4.5 T&E infrastructure and requirements
- 4.6. Ongoing and new T&E programs

5. <u>Goals</u>:

- 5.1. Establish/Improve T&E policies and processes (update local instructions)
- 5.2. Increase T&E awareness within the workforce
- 5.3. Advocate T&E training within the workforce
- 5.4. Ensure early identification of T&E requirements (infrastructure and program specific)
- 5.5. Ensure information flow between program office, Robins CTA, and other T&E organizations

6. Membership:

- 6.1. Chair: Chief, Robins CTA (and staff).
- 6.2. Standing Members (voting): Robins Air Force Test Center Representative (AFTC Rep), Test Managers/selected points of contact from each AFLCMC program office, selected points of contact from each applicable AFSC group level organization, and AFLCMC/SES.
- 6.3. Ad Hoc Members (non-voting): Representatives from AFSC/EN OL-Robins, 413th Flight Test Group, Warner Robins Air Logistics Center, 78th Air base Wing, 339th Flight Test Squadron, and Detachment 2, 605th Test and Evaluation Squadron.

7. Responsibilities:

- 7.1. The Chair will:
- 7.1.1. Call and preside over the T&E Working Group meetings.
- 7.1.2. Record and publish meeting minutes in a timely manner.
- 7.1.3. Provide status of the T&E Working Group decisions and issues to the Robins Engineering Advisory Board, AFLCMC/EZP, and AFLCMC/AZT on a regular basis.
- 7.1.4. Sponsor appropriate decision or information briefs to the Robins Engineering Advisory Board, AFLCMC/EZP, and/or AFLCMC/AZT.
- 7.2. The T&E Working Group members will:
- 7.2.1. Actively participate as representatives of their organizations in all T&E Working Group meetings.
- 7.2.2. Standing members will provide advice and inputs as desired and vote on all appropriate working group decisions.

- 7.2.3. Ad hoc members may be specifically invited to some meetings to provide subject matter expertise, and are welcome to attend all meetings.
- 7.2.4. Ensure their program office/organization leadership is fully informed and aware of T&E Working Group activities/decisions.
- 7.2.5. Act as a liaison, bringing information, concerns, ideas, suggestions, etc. to the T&E Working Group from their organization and distributing pertinent information back to their organization.
- 7.2.6. Accomplish action items, as applicable.