BY ORDER OF THE COMMANDER
AIR MOBILITY COMMAND

AIR MOBILITY COMMAND
INSTRUCTION 99-101

26 JULY 2024

Test and Evaluation

TEST AND EVALUATION

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at **http://www.e-publishing.af.mil**.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ AMC/TEP

Certified by: HQ AMC/TE
(Col Philip G. Morrison)

Supersedes: AMCI 99-101, 18 JUNE 2018

Pages: 54

This instruction implements DODI5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation,* Department of the Air Force Instruction (DAFI) 63-101/20-101, *Integrated Life Cycle Management,* and DAFI 65-601, Volume 1, *Budget Guidance and Procedures*. It establishes guidance, responsibilities and procedures for conducting the Air Mobility Command (AMC) Test and Evaluation (T&E) program. This publication applies to Air Mobility Command and AMC-gained Air National Guard (ANG) and Air Force Reserve Command (AFRC) units, except where noted otherwise. This does not apply to United States Space Force. Submit recommended changes to this instruction via DAF Form 847, *Recommendation for Change of Publication,* to HQ AMC/TEP. This publication may not be supplemented or further implemented or extended. Submit waiver requests through the chain of command to the Office of Primary Responsibility (OPR) listed above for consideration and approval in accordance with **paragraph 1.6**. 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 in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Several definitions, descriptions and acronyms have changed throughout to ensure this instruction complies with governing public laws, DoDDs, DoDIs and DAFIs.

Chapter 1

GENERAL GUIDANCE

1.1. Test and Evaluation (T&E) Purpose. The overarching functions of T&E in the Mobility Air Forces (MAF) is to manage risks, identify and help resolve deficiencies as early as possible and ensure systems are operationally effective and suitable. Prior to operational employment, T&E is conducted and reported independently of the developer, user and system contractor. AMC is involved with two types of T&E within the defense acquisition system: Developmental Test & Evaluation (DT&E) (or DT) and Operational Test & Evaluation (OT&E) (or OT). Refer to DODI5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation*, for AF guidance. HQ AMC/TE conducts OT and assists with and coordinates resources for DT, as well as demonstration and experimentation efforts as required.

1.2. AMC T&E Purpose. HQ AMC/TE conducts OT to determine the operational effectiveness and suitability of the System Under Test (SUT), Tactics, Techniques and Procedures (TTP), training and doctrine or the operational potential for the MAF. OT results are provided to support senior-level decision makers in mitigating risk associated with these programs. AMC testers conduct OT in the most realistic operational environment possible to meet AMC's lead command requirements throughout the system's life cycle or tactics employment. OT conditions should be representative of operational conditions to include wartime surge and combat support requirements at austere sites and humanitarian assistance/disaster relief operations. Testers may use Modeling and Simulation (M&S) as an evaluation tool to augment, extend or enhance field test results. AMC conducts OT to:

1.2.1. Answer Critical Operational Issues (COI) to determine operational effectiveness, suitability or capacity to achieve operational capabilities. AMC normally uses effectiveness and suitability as a basis for COIs.

1.2.2. Answer Assessment Objectives (AO) for potential effectiveness, suitability, or capability of a system, procedure or tactic to perform the intended mission during OAs. COIs may be more appropriate when the OA supports significant acquisition events (e.g., program funding increments, milestones or entry into OT) and when criteria are defined. Applicability of COIs or AOs will be determined by the SUT's Integrated Test Team (ITT). **Exception:** Use of AOs is not an Air National Guard Air Force Reserve Test Center (AATC) requirement.

1.2.3. Identify and report operational capabilities, limitations and deficiencies to include:

1.2.3.1. Documenting deficiencies for resolution.

1.2.3.2. Recommending changes in system configuration.

1.2.3.3. Providing information for developing TTPs.

1.2.4. Provide information to refine Operations and Maintenance (O&M) cost estimates and to identify system characteristics or deficiencies concerning operations and logistics.

1.2.5. Identify, evaluate and report logistic support capabilities to include Reliability, Maintainability and Availability (RMA) limitations and deficiencies. Evaluate overall logistics supportability of a system to meet wartime usage requirements.

1.2.6. Identify preventive maintenance requirements, costs, frequency and complexity of the task.

1.2.7. Assess the survivability and reliability of the system in the operational environment.

1.2.8. Identify, evaluate and design controls to minimize potential health effects that may be generated by the system.

1.2.9. Evaluate system compatibility, interoperability and integration and assess test security of classified and/or sensitive information that is stored in or used by the system.

1.2.10. Identify, assess and mitigate, to the greatest extent practicable, human health, safety and environmental risks resulting from the testing of systems.

1.2.11. Identify, to the greatest extent practicable, cybersecurity testing that has occurred on systems under test.

1.2.12. Assess potential cybersecurity issues and testing strategies through methodologies such as Mission Based Cyber Risk Assessments (MBCRA), Cyber Table Top (CTT), or Mission-based Risk Assessment Process for Cyber (MRAP-C). References include the DoD Cybersecurity Test and Evaluation Guidebook, and the Mission-based Risk Assessment Process for Cyber (MRAP-C) Guidebook.

1.3. AMC T&E Activity. AMC conducts and directs OT, and assists with coordinating DT resources for MAF programs, and conducts or advises on experimentation and demonstration across the MAF. These efforts will be integrated with other testing whenever practicable including early involvement during DT. T&E documents such as test plans, test reports, interim reports, program documents including Test and Evaluation Master Plans (TEMP) and memorandums of agreement, consolidated staff coordination and approval and certification or concurrence documents shall be entered into the AMC Test Information Management System (TIMS). In addition to the testing defined in DODI5000.89_DAFI 99-103, AMC conducts or assists in the following:

1.3.1. Air Transportability Test Loading (ATTL). Validations and formal load T&E ATTLs are specific to the MAF. The customer submits a proposed shipping configuration considered a “transportability problem item” to the Air Transportability Test Loading Activity (ATTLA). In general, a cargo item may be considered problematic due to its physical size, weight, fragility, hazardous characteristics or lack of adequate means of restraint. ATTLA will accomplish a technical analysis of the item and if analysis cannot determine the item can be safely loaded and airlifted, ATTLA will recommend either a loading validation or an ATTL.

1.3.1.1. Loading Validation. ATTLA may request AMC Test and Evaluation (HQ AMC/TE) to coordinate the requirement for field unit evaluators or instructor loadmasters to conduct load validation exercises prior to issuing final air transportability approval in lieu of an ATTL based on the technical analysis. Less rigorous load validations may be conducted by operational loadmasters in conjunction with the item’s first movement. Feedback on any required procedural adjustments to the Internal Air Transport Certification should be forwarded to Combat Airlift Operations Branch (HQ AMC/A3VX) according to the appropriate mission design series AFI 11-2 series Volume 3 (Chapter 13) procedures.

1.3.1.2. ATTL test loadings are coordinated by HQ AMC/TE to plan and execute ATTLs and report test criteria, results and details of any specific procedures or preparations needed to load the item. ATTLA will usually approve an item for airlift based upon a successful test load via the Internal Air Transport Certification. In addition, a copy of the certification is forwarded to HQ AMC/A3V for inclusion in their files and another copy of the certification is maintained permanently in the item's project file at ATTLA.

1.3.1.3. Refer to DoDI 4540.07, *Operation of the DoD Engineering for Transportability and Deployability Program,* for air transport certification responsibilities. Also see AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments* and ATTLA's website at **https://intelshare.intelink.gov/sites/attla/SitePages/Home.aspx**.

1.3.2. Proposed Test Plans (PTP). When MAF resources are required for airdrop T&E by non-AF test agencies (mainly the U.S. Army and the Missile Defense Agency (MDA)), AMC/TE coordinates the required resources for approval. Refer to MIL-STD-1791-1, *Department of Defense Design Criteria Standard*, *Criteria for Nonstandard Airdrop Equipment and Payloads,* for information on the PTP process. AMC support is described in **paragraph 1.5.4** of this document.

1.3.3. Logistics Service Test (LGST). AMC conducts LGSTs to evaluate the operational effectiveness and suitability of specific logistic systems and subsystems when form, fit and function replacement items are proposed by Program Managers (PMs) or Functional Managers (FMs). An LGST is smaller in scope than an FDE or OUE and addresses candidate product improvement for RMA and overall logistics supportability of proposed systems.

1.3.4. Joint Reliability and Maintainability Evaluation Team (JRMET). Established to collect, review, define and categorize the Reliability and Maintainability (R&M) data during operational T&E, usually for Office of the Secretary of Defense (OSD)-oversight programs.

1.3.4.1. The JRMET determines and documents operating and logistics procedures and defines failure categories including maintenance events.

1.3.4.2. The JRMET will review the collected R&M data for accuracy and completeness. Data will only be collected from Field Maintenance Command and Control (FMxC2), an analytical system used to collect maintenance data for AF mobility aircraft.

1.3.5. Integrated Systems Evaluation (ISE). This is a DT event intended to uncover potential problems when in an operational environment while system development is the responsibility of AFMC and contractors. **Note:** When ISEs or similar DT missions are to fly in the enroute system, TMs shall coordinate with 618th Air Operations Center (Tanker Airlift Control Center) Airlift Allocation Division (618 AOC (TACC))/ARD to have the mission entered into the Global Decision Support System, normally with a simulated AMC mission number.

1.3.6. Sufficiency of Test Review. An examination by MAJCOM operational testers of all available test data to (1) determine if adequate testing has been accomplished for programs of limited scope and complexity; and (2) to assess the risk of fielding or production on a system that may not have had a dedicated OT&E. The Integrated Test Team should recommend a Sufficiency of Test Review when collected test data can address all test measures and result in effectiveness and suitability ratings. A Sufficiency of Test Review is not intended to be a cost or schedule-driven solution. HQ AMC/TE will provide test requesters with information to determine risk factors of not doing formal OT, as applicable.

1.3.7. Experimentation. In general terms, experimentation answers the question, "If I do this, what will happen?" Experimentation provides decision makers with information they need to make decisions, and opportunities for technologists and warfighters to evaluate potential solutions to existing or emerging warfighter capability gaps. Experimentation also enables rapid evaluation of a military problem, increasing the speed by which knowledge and understanding is gained and decisions can be made. According to the Defense Science Board, "experimentation fuels the discovery and creation of knowledge and leads to the development and improvement of products, processes, systems, and organizations." AMC/TE conducts or supports AMC experimentation in much the same way as it conducts dedicated OT. Although the timeline may be abbreviated, requiring development of an experimentation plan that is less robust than a typical operational test plan, it is still a deliberately planned, executed and reported effort. An experiment is still driven by the requirement to answer a question and provide information that assists decision makers, while not sacrificing safety or accepting uninformed risk. As with other dedicated OT, AMC/TE acts as an impartial entity, not a sponsor or program manager. AMC/TE works with the sponsor to execute the event and provide information to support a decision. AMC does not fund test articles or pay for Research, Development, Test & Evaluation (RDT&E).

1.3.8. Demonstration. Demonstration, in contrast with experimentation, presents and confirms what is already known. With demonstrations, the uncertainty has already been resolved; demonstrations simply recreate that knowledge to reveal the relationships between variables. AMC/TE conducts or supports AMC demonstrations in much the same way as it conducts dedicated OT. Although the timeline may be abbreviated, requiring development of a demonstration plan (often less robust than a typical operational test plan), it is still a deliberately planned, executed and reported effort. A demonstration is still driven by the requirement to answer a question and provide information that assists decision makers, while not sacrificing safety or accepting uninformed risk. As with other dedicated OT, AMC/TE acts as an impartial entity, not a sponsor or program manager. AMC/TE works with the sponsor to execute the event and provide information to support a decision. AMC does not fund test or demonstration articles or pay for RDT&E.

1.4. AMC T&E Management. HQ AMC/TE:

1.4.1. HQ AMC/TE is lead OTO for the MAF, and AMC single point of contact (POC) for all T&E issues. **Exception:** Medical equipment, for which OT&E is conducted by the Air Force Medical Agency Operational Medicine Test & Evaluation Branch (AFMED/SG5T), the Air Force Medical Evaluation Support Agency.

1.4.2. Manages and directs all AMC-conducted OT through the Policy and Resources Division (HQ AMC/TEP); Mobility Test Management Division (HQ AMC/TEA); and the AMC Test and Evaluation Squadron (AMCTES), a Field Operating Agency reporting to HQ AMC/TE.

1.4.3. Coordinates MAF test projects conducted by AATC when AATC is executing MAF OT. Tests executed by other MAJCOMs and Services will be arranged by mutual agreements. Test plans and test reports shall be reviewed and approved by HQ AMC/TE for all OT performed under a HQ AMC/TE test order.

1.4.4. Interprets and ensures compliance with DoD and HQ USAF T&E policy, and formulates AMC T&E guidance and procedures, and programs test resources.

1.4.5. Reviews and coordinates on operational capability documents and other T&E-related acquisition documentation to ensure testability of requirements.

1.4.6. Reviews and coordinates all Test Resource Plans (TRP), TEMPs, and Support Agreements (e.g., memorandums of understanding) that require AMC resources.

1.4.7. Budgets 3400 O&M funds for all AMC-conducted OT, excluding test articles and procedure development. Test and evaluation activities are funded in accordance with DAFMAN 65-605, Volume 1, *Budget Guidance and Technical Procedures,* Section 14C. See **paragraph 4.4.1**.

1.4.8. Receives/validates all test requests through appropriate HQ AMC PMs or FMs at the division level and tasks AMC test units to plan, conduct and report on AMC OT.

1.4.9. Coordinates all T&E involving explosives or munitions with the Weapons, Space and Nuclear Safety Division (HQ AMC/SEW) for safety issues and compliance.

1.4.10. Staffs and coordinates non-AMC test plans and final reports from tests utilizing MAF resources with the AMC staff (division-level) and other agencies as appropriate and provides a HQ AMC/TE approval memo prior to publishing. See **paragraph 3.3.3** and **paragraph 3.3.4** respectively.

1.4.11. Validates and command certifies all AF Form 1067, *Modification Proposal*, for temporary modifications for test (T-2 designation). See **paragraph 3.6**.

1.4.12. Submits Special Assignment Airlift Mission (SAAM) requests for AMC-required OT when conducted by AMC.

1.4.13. Reviews requests and authorizes release of any AMC test plans, reports and data.

1.4.14. Participates early in high performance teams (HPT) and ITTs which are cross-functional in nature and Test Integrated Product Teams (TIPT) that focus on a specific test issue or problem in developing capabilities-based requirements and test plans in support of acquisition and sustainment programs and operations.

1.4.15. Chairs the initial ITT for AMC-sponsored tests to establish COIs, AOs, or evaluation criteria, evaluate baselines and organizational responsibilities, and determine resource requirements. The AFLCMC or AFSC Program Offices are co-chair for programs they manage. Composition of ITT members is based on the scope and type of test.

1.4.16. Conducts on-going ITTs as needed in order to coordinate test planning, execution and reporting efforts.

1.4.17. Coordinates and obtains approval for Mission Essential Personnel (MEP), passengers, test maneuvers, resource requirements defined in the plan and assesses the need for waivers during issue of test orders and review of the draft test plan. See **paragraph 3.3.3**.

1.4.18. Evaluates Risk Management (RM) factors and test limitations. If necessary, appropriate control measures will be addressed in the test order and ITTs.

1.4.19. All AMC conducted testing (including experimentation or demonstration) will consider the potential need for an environmental impact analysis. If required, or if the requirement is in question, the host base(s) civil engineering office will be consulted. If

required, HQ AMC/TE will initiate Section 1 of AF Form 813, *Request for Environmental Impact Analysis,* and submit to host base(s) for analysis.

1.4.20. Coordinates AMC T&E requirements and efforts with the PM, FM, Air Force Operational Test and Evaluation Center (AFOTEC), the HQ AMC staff, 18 AF and the 618th Air Operations Center (Tanker Airlift Control Center) Airlift Allocation Division (618 AOC (TACC)/AAD). See **paragraph 4.6** for a discussion of AFOTEC Test Resource Plans, and **paragraph 4.8** for details on coordinating aircraft or personnel to support test.

1.4.21. Closes out tests by providing a copy of the test report to test requesters. Further, AMCTES will submit test plans and reports to the Defense Technical Information Center (DTIC) and receive an accession number (AN). Test documents shall be posted in TIMS**.**

1.4.22. Assists tasked operational test units as required. AMCTES, with associated Detachment and Operating Locations (OL), is the primary operational test unit for AMC. AATC is the secondary operational test unit for AMC accomplishing MAF T&E (see **Attachment 2**). AMC operational test units shall:

1.4.22.1. Plan, execute and report T&E for the MAF.

1.4.22.2. Conduct Safety Review Boards (SRB) using Risk Management (RM) principles and include documentation of the safety review in the test plan.

1.4.22.3. Develop internal processes to execute the guidance in this instruction when operating under an AMC test order.

1.4.22.4. HQ AMC/TE will coordinate/schedule OT cybersecurity testing by reaching out to a cooperative penetration team to support the Cooperative Vulnerability and Penetration Assessment (CVPA) and the National Security Agency (NSA)-certified Red Teams to support the Adversarial Assessment (AA). These teams should be scheduled as soon as the test request has been received and validated due to limited availability of the assessment teams. AMC/TE also reviews and coordinates required paperwork (to include cyber-specific AF Forms 1067), supports cybersecurity assessment teams during test execution, and includes any findings within the final test report.

1.4.23. Coordinates with the AMC PM/FM who manages all aspects of a specific AMC materiel acquisition, tactics development or training program. PM/FM responsibilities relating to T&E are to:

1.4.23.1. Coordinate with HQ AMC/TE at the beginning of all AMC materiel acquisitions, procedure and tactics development or training development programs when testing may be required.

1.4.23.2. Provide the required tactics, training program or number of test articles to be evaluated.

1.4.23.3. Provide certification documentation stating the system or process is ready for dedicated OT.

1.4.23.4. Participate in HPTs, ITTs, and other groups as required and co-chairs ITTs when required by DODI 5000.89_DAFI 99-103 or requested by the Test Manager (TM) for MAJCOM projects.

1.4.23.5. Assist the TM in securing operational unit support personnel, special equipment, and training for test execution when not included in Readiness-Driven Allocation Process (RDAP) taskings. See **paragraph 4.8.1** for tasking information.

1.4.23.6. Ensure agreements have been made to exclude AMC test team liability for test articles reasonably used according to the test plan. Specifically, failure of a test article in an operationally representative environment will not be the responsibility of those conducting the test. See **paragraph 3.3.3.3** for more guidance.

1.4.23.7. Coordinate with HQ AMC/TE on all unsolicited proposals from contractors that could involve T&E.

1.4.24. Ensure the requirements of DAFMAN 63-119, *Mission-Oriented Test Readiness Certification,* are complied with.

1.5. AMC Management for Non-AMC Conducted T&E. HQ AMC/TE reviews and coordinates all non-AMC test documents and subsequent revisions that require the use of AMC resources except for Lead Developmental Test & Evaluation Organization (LDTO) T&E when AFMC has possession of the test resources. HQ AMC/TE may conduct a singular review of test plans and test work request processes involving AMC aircraft which are transferred to AFMC for DT&E, to include follow-on flight test program or electromagnetic interference (EMI) and electromagnetic compatibility (EMC) testing. HQ AMC/TE:

1.5.1. Coordinates all support requests which require 18 AF tasking.

1.5.2. Supports the following on-going activities to include but not limited to:

1.5.2.1. U.S. Army airdrop testing.

1.5.2.2. Air Force Research Laboratory projects.

1.5.2.3. Foreign Comparative Test (FCT)s directed by the OSD (FCTs may be conducted by AMC).

1.5.2.4. Dedicated OT&E conducted by AFOTEC.

1.5.2.5. Joint Test and Evaluation (JT&E).

1.5.2.6. Air Force Test Center Follow on Flight Testing (FOFT).

1.5.2.7. AF Foreign Materiel Program (FMP).

1.5.2.8. MDA targets program.

1.5.2.9. Defense Advanced Research Projects Agency (DARPA) projects.

1.5.2.10. National Aeronautics and Space Administration recovery systems projects. **Note:** AMC/TE shall generally conduct operational assessments but not formal OT&E on projects that have not entered the acquisition life cycle.

1.5.3. Fund support of other T&E agencies when in direct support of AMC-conducted testing. Other test agencies may collect test data on AMC-conducted tests in a collaborative manner with the supported agency. Such funding shall be planned proportionally.

1.5.4. Will accomplish the following in support of PTPs:

1.5.4.1. Coordinate approval memorandum with appropriate restrictions and procedures including Program Office engineering and the Air Transportability Test Loading Activity (ATTLA) approval attachments through HQ AMC staff.

1.5.4.2. Coordinate approval of non-standard test-specific checklists with the AMC staff.

1.5.4.3. Coordinate safety certification from the user for tests involving munitions or other explosive materials in accordance with AFMAN 24-604 and MIL-STD-1791-1.

1.5.5. Boards AF Forms 1067 with AMC and the Program Office for modifications that interface with the aircraft or are powered on during operations. **Exception:** AF Forms 1067 for modifications when aircraft or equipment are possessed by AFMC may not require an AMC board. Military Flight Release or airworthiness certification is provided by the Program Office when required. See **paragraph 3.6** for amplification.

1.5.6. Coordinates MEP requests.

1.5.7. Arranges for physiological technician aircrew members for high-altitude airdrop test missions managed by AMC.

1.5.8. Serves as liaison to aircrews who perform joint airdrop inspections in support of T&E activity through AMCTES OLs.

1.6. Waiver Requests. The HQ AMC Director of Test and Evaluation is the sole waiver authority for this instruction.

1.6.1. Submit waiver requests in writing to HQ AMC/TEP at the address listed in **Attachment 5.**

1.6.2. Waivers will not be approved for conducting OT&E mandated by public law, statutes, governing DoDIs and DoDDs or DODI 5000.89_DAFI 99-103.

Chapter 2

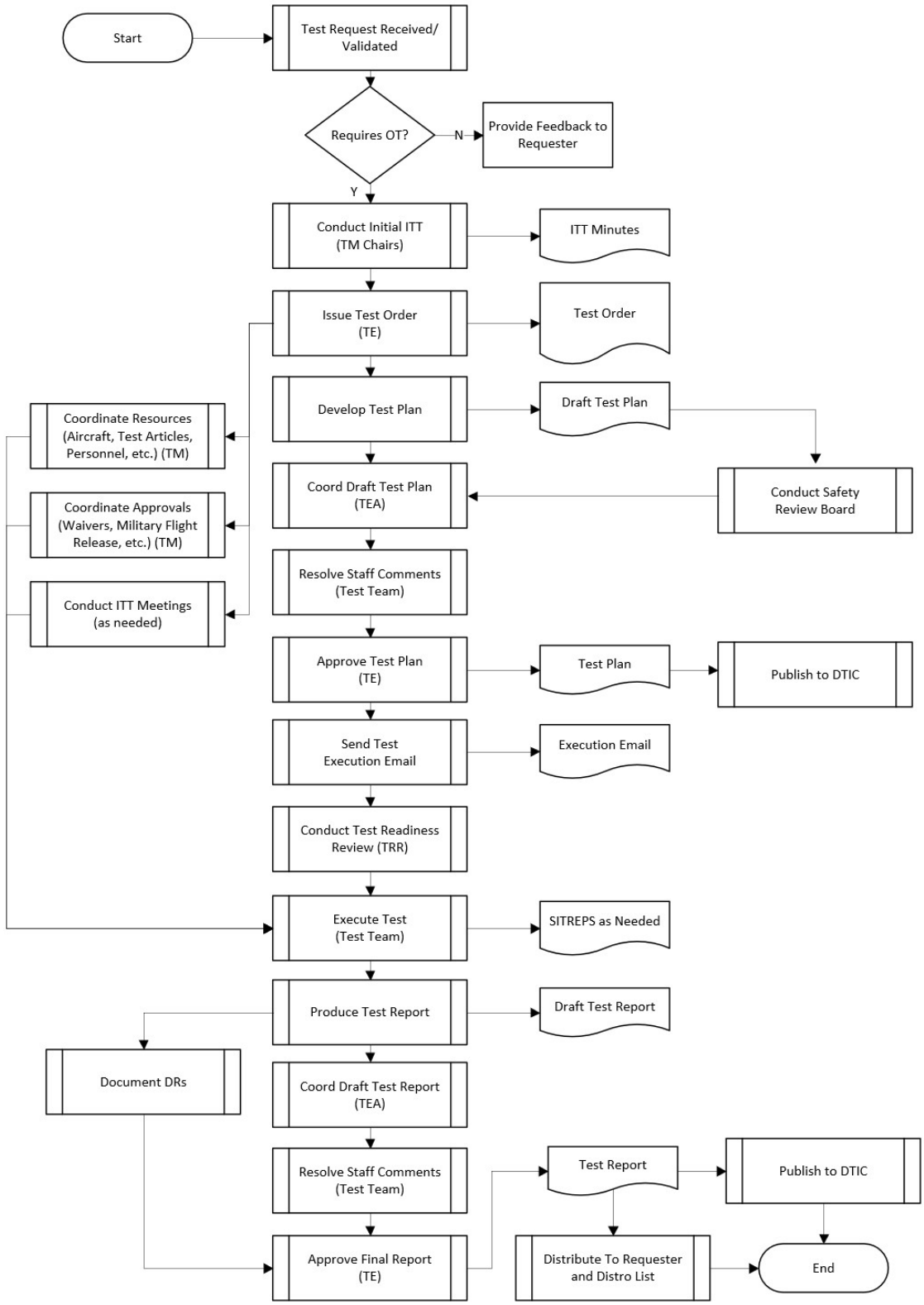
AMC T&E PROCESS

2.1. AMC T&E as a Continuous Process. AMC conducts OT&E to allow senior leaders to make informed decisions and mitigate risk throughout the acquisition, logistics support and tactics development and fielding processes. **Figure 2.1** illustrates the AMC T&E process beginning as a user need outlined in the test request. The test request identifies the requirement and its proposed action. Test design is developed through the test order and test plan. The approved test plan captures the detailed planning that structures the actual test conduct, data collection and analysis. The final report provides information for decision makers to mitigate operational and acquisition risk.

2.2. Tailoring T&E. AMC tailors OT&E to meet specific program needs since acquisition programs do not always follow a standard process. Many programs, to include fast-track programs such as Urgent Operational Needs, may not require or allow for a formal OT&E process. The test requester shall assume operational or acquisition risk incurred to limitations in these cases. HQ AMC/TE, operational test units and the user will determine the most cost-effective, safe, best structured and efficient manner to conduct adequate T&E. Fast-track and other non-standard programs are described in AFI 10-601, *Operational Capability Requirements Documentation and Validation.*

2.3. HQ AMC Test Execution Process. Validation of test requests and coordination of test plans and test reports are completed at the HQ AMC division-level (three digit) or equivalent. AATC processes are outlined in **Attachment 2**. TMs shall determine the appropriate organizations to coordinate with based on possible impact to PM and FM responsibilities and special mission requirements. **Figure 2.1** and **Figure 2.2** illustrate the process to plan, execute, report and document AMC OT&E activities, as well as AMC demonstrations and experimentation.

Figure 2.1. Test Execution Process



2.3.1. Test Request. Organizations within AMC headquarters identify a requirement and submit a test request (at 3-digit level or higher). An example of a test is at **Attachment 3.** For requests originating outside HQ AMC, AMC/TE will seek to identify an HQ AMC sponsor to validate the requirement. Testing identified in a coordinated TEMP or Test Strategy do not require a separate test request but do require an AMC sponsor outside of AMC/TE. The TM shall search the Defense Technical Information Center (DTIC) database to determine if any similar testing has been completed previously. The TM validates the test request when made by an agency outside the AMC staff by coordinating it through the appropriate HQ AMC functional areas (division or higher) of the AMC staff. The TM test validation process determines whether or not to continue with T&E planning. Typical discerning reasons may be that a DT effort is merited, OT has been previously accomplished, or a test article is not available. These factors are coordinated with the requester/validator.

2.3.2. Initial Integrated Test Team Meeting. The TM chairs the initial ITT with the TD as co-chair. The AMC PM/FM or AFLCMC PM may also co-chair at the TM's discretion. Identification of user-defined criteria, critical requirements, limitations, COIs and contractor document distribution requirements/limitations shall be identified early to promote test success.

2.3.3. Test Order. The TM uses initial ITT results to produce the test order which tasks the appropriate test unit to begin planning and execution. Other test team processes will be addressed and documented by the ITT.

2.3.4. Test Plan. The executing OTO develops the draft test plan and submits it to HQ AMC/TE for headquarters staff coordination and AMC approval.

2.3.5. Safety Review Board (SRB). The purpose of the SRB is to review the draft test plan, identify hazards, determine hazard categories, review the operating hazard analysis and assign an overall risk level to the test according to AMCTES OI 91-202, *Operational Test Safety Planning*. Further, draft test plans and draft test reports will be reviewed by HQ AMC/SE for MAJCOM implications. Risk Management (RM) is a major consideration throughout the test process.

2.3.6. Test Plan Staffing and Coordination. The TM staffs the draft test plan, coordinates staff comments, resolves issues between the TD and staff when possible, and prepares the approval memo.

2.3.7. Test Plan Approval. Once coordination is complete, and no critical comments exist, HQ AMC/TE issues a memorandum to the executing test organization approving the test plan. Additionally, the TM and TD gather documents for OT readiness (e.g., DT report, Program Office or AMC PM determinations, AF Forms 1067 and airworthiness certifications).

2.3.8. Test Plan Publication. The test team publishes the final test plan and forwards a copy to Defense Technical Information Center (DTIC) for archiving. The TM enters the test plan in TIMS.

2.3.9. Test Readiness Review (TRR**).** The executing test organization conducts a TRR to determine all pre-test activities are complete.

2.3.10. Test Execution. The test team executes the test and prepares situation reports as required. ITTs and/or Test Integrated Product Team (TIPT) may be convened as required. TIPTs are temporary and focus on a specific issue.

2.3.11. Test Report. The test team drafts a final report and forwards it to AMC/TE for review and approval. Other test team processes will be addressed and documented by ITT.

2.3.12. Test Report Staffing and Coordination. After a thorough review, the TM staffs the draft final report, and resolves issues between the test team and staff when possible. If needed, the test team works with the staff to resolve issues identified during staffing.

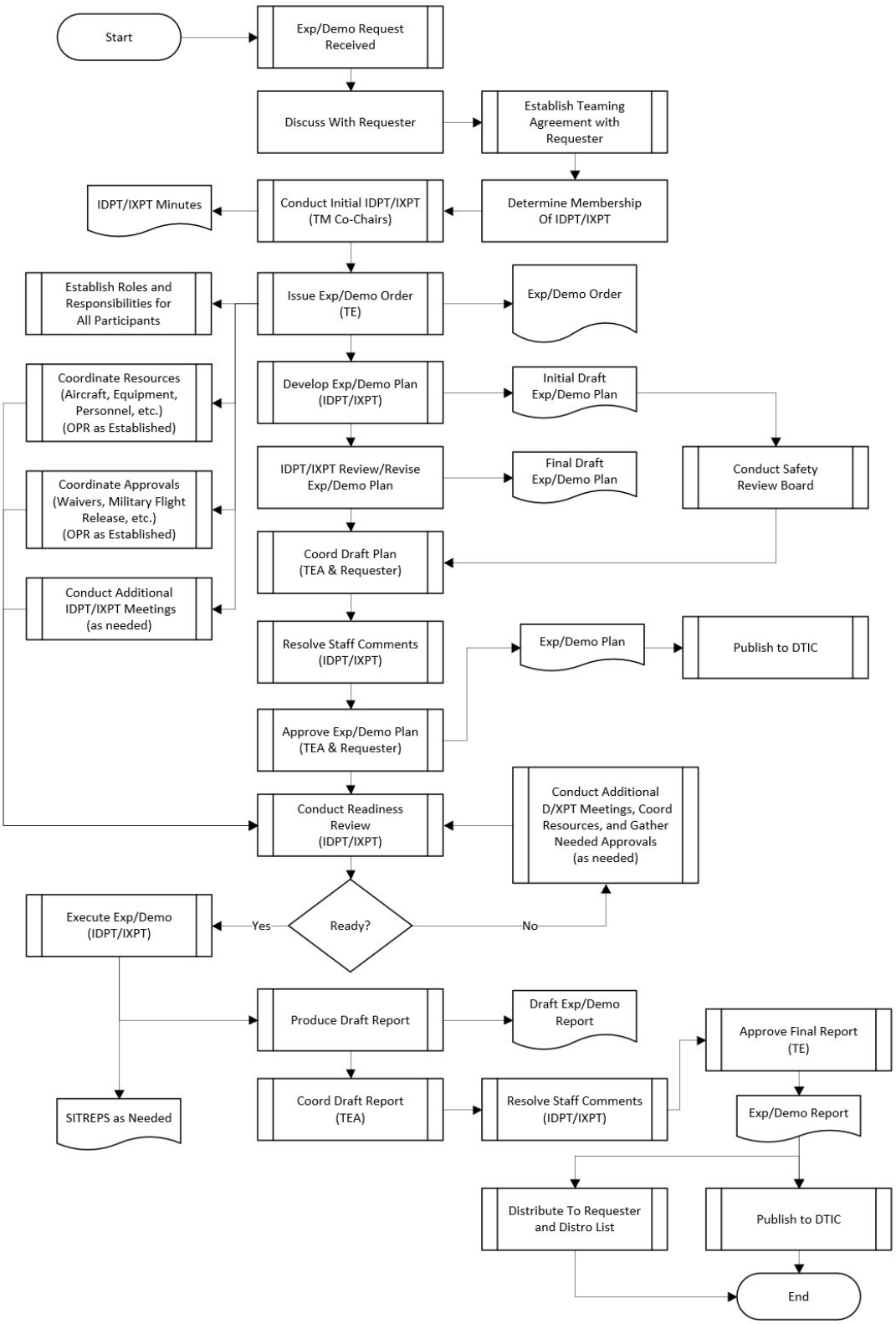
2.3.13. Final Report Approval. Once staffing and coordination is complete, AMC/TE issues a memorandum approving the report for publication. During this staffing cycle, command OPRs are confirmed for each test recommendation.

2.3.14. Report Publication. The test is complete when the executing test organization publishes the final report with DTIC, forwards a copy to the test requester, and disseminates to the distribution list. The executing test organization will provide the DTIC Accession Number to HQ AMC/TE after publishing is complete. The TM enters the final report in Test Information Management System (TIMS).

2.3.15. The test process ends when the test report is published to DTIC. Other test units will close any tests according to internal processes. Deficiency report follow-on actions such as review boards are described in **paragraph 3.3.6**. TMs and TDs will document lessons learned throughout the course of T&E activity to include information from situation reports (SITREP), “hot washes” and after-action reports.

2.4. HQ AMC Demonstration and Experimentation Process. Validation of demonstration and experimentation requests and coordination of associated plans and reports are completed at the HQ AMC division-level (three-digit) or equivalent. TMs shall determine the appropriate organizations to coordinate with based on possible impact to PM and FM responsibilities and special mission requirements. **Figure 2.2** illustrates the process to plan, execute, report and document AMC demonstrations and experiments which involve AMC/TE.

Figure 2.2. Demonstration/Experimentation Execution Process



2.4.1. Though similar to tests, demonstrations and experiments have a separate process. While many of the above steps are the same, the following identifies roles and responsibilities of AMC/TE and the demonstration/experimentation sponsor.

2.4.1.1. AMC/TE Will:

2.4.1.1.1. Provide a Test Manager (TM) to support the demo/experiment sponsor. The TM will be a subject matter expert in test and evaluation procedures and can help guide the sponsor in the development of required materials. The TM will co-chair the Integrated Development/Experimentation Planning Team (IDPT/IXPT) with the sponsor.

2.4.1.1.2. Support in developing and performing safety/risk assessment. The TM or AMCTES may also help draft portions of the Demonstration/Experimentation Plan, as needed.

2.4.1.1.3. Staff the draft Demo/Experiment Plan and draft Final Report for review/concurrence. AMC/TE (through AMCTES) will publish the Demo/Experiment Plan and Final Report to DTIC.

2.4.1.1.4. Provide an AMC demo/experiment number for AMC/TE tracking.

2.4.1.1.5. Assist the sponsor in writing and shepherding T-2 1067s through the AMC Configuration Review Board (CRB) process and program offices.

2.4.1.1.6. Coordinate aircraft, aircrew or maintenance resources if using the RDAP process. If RDAP is not needed, the sponsor will coordinate resources through other means.

2.4.1.2. The AMC sponsor will:

2.4.1.2.1. Appoint or identify a POC that will act as the demo/experiment lead.

2.4.1.2.2. Coordinate funding resources required for execution of the demo/experiment.

2.4.1.2.3. Co-chair the initial IDPT/IXPT.

2.4.1.2.4. Lead development of the demo/experiment plan. Though overall responsible for the plan, other organizations will be available to provide inputs as needed.

2.4.1.2.5. Write any T-2 1067's needed and advocate for them in the AMC CRB.

2.4.1.2.6. Identify AMC aircraft, aircrew, and/or maintenance personnel or equipment needed to support the demonstration/experimentation. If RDAP process is needed, the sponsor will coordinate requirement through AMC/TEP. If RDAP is not needed, the sponsor will coordinate resources through other means.

2.4.1.2.7. Obtain waivers and coordinate MEP status for participants, as required.

2.4.2. Demonstration/Experimentation Request. Organizations within AMC headquarters may request AMC/TE assistance with planning and execution of a demonstration or experiment (at 3-digit level or higher). An example of a demonstration/experimentation

request is at **Attachment 3.** For requests originating outside HQ AMC, AMC/TE will seek to identify an HQ AMC division to sponsor and lead the effort for AMC.

2.4.3. Teaming Agreement. Prior to establishing the larger integrated demonstration/experimentation process team (IDPT/IXPT) membership, a teaming agreement explicitly outlining roles and responsibilities of requester and AMC/TE will be drafted and signed. See **Paragraph 2.4.1** for specific roles and responsibilities that will be included. Additional responsibilities may be assigned based on the unique nature of each effort.

2.4.4. Initial Integrated Demo/Experiment Process Team Meeting. The sponsor lead co-chairs the initial IDPT/IXPT meeting with the TM. The AMC PM/FM or AFLCMC PM may also co-chair at the TM's discretion. Identification of user-defined criteria, critical requirements, limitations, COIs and contractor document distribution requirements/limitations shall be identified early to promote test success.

2.4.5. Demo/Experiment Order. The TM uses initial IDPT/IXPT results to produce the demo/experiment order which tasks the appropriate test unit to begin planning to support the demonstration or experiment.

2.4.6. Demo/Experiment Plan. The executing test organization will assist in developing the draft demo/experiment plan along with other participants as outlined in the teaming agreement. Once complete, HQ AMC/TE will conduct headquarters staff coordination for AMC approval.

2.4.7. Safety Review Board (SRB). The purpose of the SRB is to review the draft demo/experiment plan, identify hazards, determine hazard categories, review the operating hazard analysis and assign an overall risk level to the effort according to AMCTES OI 91-202. Further, draft plans and draft reports will be reviewed by HQ AMC/SE for MAJCOM implications. Risk Management (RM) is a major consideration throughout this process.

2.4.8. Demo/Experiment Plan Staffing and Coordination. The TM staffs the draft plan, coordinates staff comments, and resolves issues between the demo/experiment team and staff.

2.4.9. Demo/Experiment Plan Approval. Once coordination is complete, and no critical comments exist, HQ AMC/TE issues a memorandum to the IDPT/IXPT approving the plan.

2.4.10. Demo/Experiment Plan Publication. The test team publishes the final demo/experiment plan and forwards a copy to Defense Technical Information Center (DTIC) for archiving. The TM enters the demo/experiment plan in TIMS.

2.4.11. Demo/Experiment Readiness Review (DRR/EXRR). The IDPT/IXPT conducts a DRR/EXRR to determine that all pre-event activities are complete, and any required waivers and/or approvals are in place.

2.4.12. Demo/Experiment Execution. The team executes the demo/experiment and prepares situation reports as required. IDPT/IXPT meetings may be convened as required.

2.4.13. Demo/Experiment Report. The team drafts a final report and forwards it to AMC/TE for review and approval. Other team processes will be addressed and documented by IDPT/IXPT or in the teaming agreement.

2.4.14. Demo/Experiment Report Staffing and Coordination. After a thorough review, the TM staffs the draft final report, and resolves issues between the team and staff when possible. If needed, the team works with the staff to resolve issues identified during staffing.

2.4.15. Final Report Approval. Once staffing and coordination is complete, AMC/TE issues a memorandum approving the report for publication. During this staffing cycle, command OPRs are confirmed for each event recommendation or action.

2.4.16. Report Publication. The demo/experiment is complete when the final report is published with DTIC and disseminated to the distribution list. The TM enters the final report in TIMS.

2.4.17. Other test units will close any tests according to internal processes. Deficiency report follow-on actions such as review boards are described in **paragraph 3.3.6**. TMs and TDs will document lessons learned throughout the course of T&E activity to include information from situation reports (SITREP), "hot washes" and after-action reports.

2.5. Lessons Learned. TMs and TDs will document lessons learned for inclusion into the AMC Lessons Learned Management Tool located on both Non-Classified Internet Protocol Router (NIPR) and Secret Internet Protocol Router (SIPR) networks. Reporting of lessons learned from daily staff operations to test events (usually from the "hot wash") is required as part of our continuous improvement program, but it is also a valuable tool to understand if others have encountered similar issues and taken previous actions

2.5.1. Non-Classified Internet Protocol Router (NIPR): **https://usaf.dps.mil/sites/AMCEDC/amc_ll/sitepages/home.aspx**

2.5.2. Secret Internet Protocol Router (SIPR): **https://intelshare.intelink.sgov.gov/sites/hqamclessonslearned**

2.6. AMC T&E Priority. AMC test priority is based on urgency and timing of required test information as determined by the user's program needs. When conflicts occur, HQ AMC/TE will use the respective weapon system Requirements and Planning Council prioritization and meet with appropriate staff agencies for resolution. This is primarily used when there is a shortfall in materiel, personnel or T&E funding.

2.6.1. HQ AMC Directorate of Operations, Strategic Deterrence & Nuclear Integration (HQ AMC/A3) Test Priority List. Test requests (see **Attachment 3**) which meet the scope of OT will be planned for and executed according to AMC mission priorities and resource availability. Tactics test efforts identified as DT, M&S or tests which require extensive aircraft instrumentation/modification cannot be accomplished by AMC/TE. For a test request to be considered for execution, the below requirements must be provided by the requesting agency with the test request.

2.6.1.1. Training Plan. This plan should be constructed prior to test execution so that any level of experience can learn the task and adequately execute the task during the test event.

2.6.1.2. Operational Concept. This concept will explain how the tactic is expected to be employed. Changes in TTPs will be identified and any risk explained. Draft verbiage for any necessary waivers will also be included.

2.6.1.3. Logistics Concept. The plan for logistic support of the system to be tested.

2.6.1.4. Coordination. Divisions such as the Training Operations Division (HQ AMC/A3T) and Standardization and Evaluation Division (HQ AMC/A3V) should be contacted to examine any potential training or regulatory issues. Prior to the start of test

planning, all applicable divisions will participate in an ITT meeting to address issues related to test execution.

2.6.1.5. In the event a test is deemed not suitable for OT, HQ AMC/TE will inform HQ AMC/A3. Options for completing the requested test will be offered, to include contracting with a third-party (such as Georgia Tech Research Institute) or submitting an AF Form 1067 for consideration by the respective Program Office.

2.7. Elevated Risk Test Plan Coordination.

2.7.1. If during the AMCTES SRB it is determined the risk is medium, the TM, while coordinating the draft test plan, will include a statement in the Task Management Tool information section explaining the elevated risk. For example, "AMCTES identified this as a medium risk test. The safety attachment lists the unique test hazards and mitigations detailing the risk analysis." If any waivers are required, they should also be explained. If a test is identified as medium risk, the AMCTES Form 214, *Test Safety Review*, must be elevated to AMC/TE for signature.

2.7.2. AMC will not conduct any test identified as high risk.

2.7.3. The Test Requester should inform the appropriate 2-digit for greater than low risk tests.

2.8. Reporting Responsibilities. During test planning, the TM, TD and requester will coordinate and conclude the report type, timeline for publication for the final report and requirement for a Situation Report (SITREP) and/or an Interim Summary Report (ISR). These report requirements shall be documented in the test plan.

Chapter 3

AMC TEST DOCUMENTATION

3.1. Introduction. HQ AMC/TE and AMCTES personnel must be familiar with key AMC test documents and their relevance to one another in order to plan, conduct and report effective T&E. The reporting requirement in this Chapter is exempt from licensing according to AFI 33-324*, The Air Force Information Collections and Reports Management Program*.

3.2. Operations Security (OPSEC). T&E processes that involve mission critical information (CI) concerning OPSEC vulnerabilities must be protected. The primary purpose of the OPSEC program is to deny mission CI to our adversaries. AMC's CI list can be obtained through HQ AMC/IP. OPSEC indicators, which are merely clues that when pieced together can lead our adversaries to our CI, must be protected too. Mission CI and OPSEC indicators will not be transmitted over unapproved or open communication-computer systems. Reports that clearly identify mission CI should be marked at least CUI. Always destroy reports that identify mission CI and OPSEC indicators when no longer needed. See **paragraph 3.4** for release of T&E documents.

3.3. Key Documents and their Relevance to the AMC T&E Process.

3.3.1. Test Request. HQ AMC division chiefs initiate or validate test requests and submit requirements to HQ AMC/TEA. HQ AMC/TEA identifies a TM to process the request and obtain validation as needed. See **Attachment 3** for an example test request. The test request must contain a minimum of nine items:

3.3.1.1. Test Purpose. Include test requirement originator.

3.3.1.2. Need date for results. Provide impact and mitigation if not met.

3.3.1.3. System description. Provide a general description of the article, procedure or tactic to be tested.

3.3.1.4. Background including state of development and previous testing.

3.3.1.5. Operational, logistics, training, and cybersecurity concepts.

3.3.1.6. Notional criteria.

3.3.1.7. Funding plan including sources external to HQ AMC/TE.

3.3.1.8. Additional information. Attach any supporting documentation.

3.3.1.9. Points of contact.

3.3.2. Test Order. HQ AMC/TE prepares a test order following the initial ITT which will include representation from the Program Office (if applicable), FMs, the test requester, the designated operational test unit and other involved contractors and operators. The test order will include:

3.3.2.1. Test requester, test type, title and project number.

3.3.2.2. Purpose of test.

3.3.2.3. Background for test request.

3.3.2.4. Description of the candidate test article, system, procedure or tactic and a description of operational, logistics, cybersecurity and training concepts pertinent to the test.

3.3.2.5. Emergency and Special Program (ESP) code.

3.3.2.6. Contractor involvement. Identify funding, distribution restrictions, and use of proprietary data, if any. **Note:** Contractors may only be directly involved in OT when allowed by law and contractually included in the Concept of Operations (CONOPS)/Concept of Employment (CONEMP) for operational system employment (e.g., training, troubleshooting and sustainment).

3.3.2.7. Scope and location to include in-place dates. Also identify test resources with OPRs, if known.

3.3.2.8. Date results are required.

3.3.2.9. Proposed COIs/AOs.

3.3.2.10. Security classification and issues.

3.3.2.11. Points of contact.

3.3.2.12. Copy of the test request, capability or operational requirements documents, and CONOPS/CONEMP when available.

3.3.3. Test Plan. The test team prepares a draft test plan and submits it to HQ AMC/TE for headquarters staff coordination. The approved test plan provides test program direction and guidance to AMC staff and designated units for the conduct of T&E.

3.3.3.1. The test plan contains detailed test structure, evaluation methodology, required resources and reporting requirements. The executing test organization publishes the approved AMC test plan and submits it to DTIC.

3.3.3.2. Contractor data may be used consistent with the contractor's proprietary rights when appropriate and properly documented. For example, contractor data may be the only available data for non-fielded Commercially Off The Shelf (COTS) systems. Contractors may only be directly involved in OT when allowed by law and contractually included in the CONOPS/CONEMP for operational system employment (e.g., training, troubleshooting and sustainment).

3.3.3.3. Contractor provided test articles. HQ AMC/TE, AMCTES, or other field operating agencies or test units operating under a HQ AMC test order will not be responsible for test articles without a documented arrangement. Agreements for loaned test articles that are non-AMC assets shall be the responsibility of the test requester. TMs shall ensure a test article loan agreement has been approved by the AMC Judge Advocate (HQ AMC/JA) and that the terms of the agreement have been documented and provided to HQ AMC/TE. Part numbers shall be recorded by the TM and TD for all articles. See **Attachment 4** for the recommended agreement for unsolicited articles, disclosures, inventions and voluntary proposals for contracts.

3.3.3.4. Director, Operational Test & Evaluation (DOT&E) will determine if a test plan or a test concept briefing is required for FDE, OUE, and OA test plans or test concept briefings

for programs that appear on the OSD-oversight list. Required timelines and criteria are outlined in DODI 5000.89_DAFI 99-103.

3.3.3.5. MEP/ACM status for AMCTES and test participant personnel is IAW DAFMAN 11-401, *Aviation Management* and AMCI 11-208, *Mobility Air Forces Management*. Approval authority for MEPs is the Operations Group Commander (OG/CC) with operational control or the 618 AOC (TACC) Senior for missions en route.

3.3.3.5.1. When the requirement for MEP is known prior to test plan approval, the following statement should be included in the test plan: "The appropriate AMC command and control agency will ensure manifesting procedures are accomplished prior to reporting to the aircraft" and "MEPs do not have to process through the passenger terminal for anti-hijacking purposes which will be accomplished by the aircrew."

3.3.3.5.2. Test MEPs may be allowed on aircraft when unqualified pilots are undergoing training and on all training and operational missions concurrent with T&E.

3.3.3.6. The test plan shall address any potential environmental risk factors and mitigation if required.

3.3.3.7. OT plans issued under an AMC test order or using MAF resources require HQ AMC/TE concurrence.

3.3.4. Final Report. The operational test unit prepares a draft final report and submits it to HQ AMC/TE for headquarters staff coordination and certification. The final report is normally published within 40 calendar days after the last test event (normally completion of data analysis). Test acceleration will involve an explicit HQ AMC/TE tasking (with coordination and prioritization) to AMCTES, AATC or other designated operational test units.

3.3.4.1. The final report is an executive-level document which answers COIs or AOs and reports on overall operational effectiveness, suitability, or operational capabilities (progress toward or potential for AOs). The report includes test results, conclusions, deficiency reports, recommendations, comments on constraints and limitations and operational impacts found. It is written objectively and directly relates test results to user criteria.

3.3.4.2. The executing test organization publishes the report and submits it to DTIC for archiving. The final report provides a formal and permanent record of the results of all previous phases of T&E. It may include annexes consisting of the executive summaries from any previous phases of T&E when needed by the test requester for incremental development.

3.3.4.3. For programs on OSD-oversight, FDE, OUE and OA final reports are provided to DOT&E. Required timelines and criteria are provided in DODI 5000.89_DAFI 99-103.

3.3.5. Test recommendations. The final report identifies the HQ AMC/HQ AFRC/NGB division-level OPR for each recommendation. If a recommendation identified a publication discrepancy, the executing test organization will submit a change request.

3.3.5.1. Document change requests to technical orders on the AFTO Form 22, *Technical Manual (TM) Change Recommendation and Reply,* or AFTO Form 27*, Preliminary*

Technical Order (PTO) Publication Change Request (PCR)/TO Verification Record/Approval.

3.3.5.2. Document change requests to flight manuals and instructions on the DAF Form 847, *Recommendation for Change of Publication*.

3.3.6. Deficiency Reports. The operational test unit will accomplish administrative actions to report, investigate and resolve deficiencies identified in the final report according to Technical Order (T.O.) 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution,* and DAFI 63-101/20-101, *Integrated Life Cycle Management.* TDs will chair the Deficiency Review Boards (DRBs) for reporting deficiencies and participate in resolution DRBs chaired by the PM as required.

3.4. Release of AMC Test Plans and Final Reports. AMCTES forwards all test plans and final reports to Defense Technical Information Center (DTIC) for publication. Other executing test organizations operating under HQ AMC test orders are responsible for the same action.

3.4.1. DTIC is the central facility for the collection and dissemination of scientific and technical information for the DoD and serves as the distribution center for all AMC published test plans and final reports. DTIC is the primary source for agencies or individuals to obtain test documents if they have distribution access (normally DoD and their contractors). Other requests should be sent to HQ AMC/TE. **Exception:** HQ AMC/TE may provide documents to the test requester, FM, PM or the sponsoring Program Office. All contractor requests for AMC test plans or final reports should be submitted using the Defense Technical Information Center (DTIC) Form 55, *Request for Release of Limited Document* (online only) following the guidance at **https://www.dodtechipedia.mil/dodwiki/pages/viewpage.action?pageId=669066558**.

3.4.2. The distribution statement cited on AMC test plans and final reports normally authorizes the release of these documents to DoD components. DTIC will release directly to any DoD component requesting a copy of an AMC test plan or final report. DTIC will forward all other requests to HQ AMC/TE for release determination for test plans and test reports generated by an AMC test order in accordance with DoD Instruction 5230.24, *Distribution Statements on DoD Technical Information,* and DoD Directive 5230.25, *Withholding of Unclassified Technical Data from Public Disclosure.* Release of test documentation not held in DTIC must be approved by HQ AMC/ TE.

3.4.3. Release of AMC test documentation to foreign agencies must be approved by both the Foreign Disclosure Officer in HQ AMC/A8X and HQ AMC/TE. Freedom of Information Act (FOIA) requests are processed through AFIMSC/IZSI and in-turn through the Administrative Law Division, HQ AMC/JAA.

3.4.4. AMC test plans, test reports and data will be openly shared with the test community when disclosure standards allow but will not be released prior to publication without the approval from HQ AMC/TE.

3.4.4.1. Release of data requires full review and appropriate restrictions by HQ AMC/TE to avoid premature conclusions, ensure competition fairness and prevent a violation of proprietary rights. Arrangements for release of data to contractors should be made through the DoD sponsor or test requester. Requests should be made prior to test execution whenever possible.

3.4.4.2. Release of AMC test documents to contractors to advance system development for DoD when disclosure is "DoD only" may be pre-approved by HQ AMC/TE by inclusion in the document distribution list. Further distribution is prohibited.

3.5. Other T&E Reports.

3.5.1. SITREP. These reports focus on progress of test activity and on specific issues required to update leadership during execution and may be submitted by email or memorandum. SITREPS must only contain test status and schedule projections. Any data provided must be stated as conditional and inconclusive. These reports may be informally referred to as "status reports" by other T&E agencies. Other requests for SITREPs must be referred to HQ AMC/TE.

3.5.2. Trip Report. Trip reports are subjective observations and are informative, but inconclusive. Trip reports are prepared in memorandum format and are limited to the test requester and HQ AMC FMs and PMs. Other requests for trip reports must be referred to HQ AMC/TE.

3.5.3. ISR. The ISR summarizes preliminary T&E results in sufficient detail for the test requester to make programmatic decisions based on assumed risk. The operational test unit provides an ISR when requested by the test requester. These reports are prepared in memorandum format and are limited to test requesters, HQ AMC FMs and PMs for AMC-conducted tests. Other requests for ISRs must be referred to HQ AMC/TE.

3.5.4. Semi-annual Status Report (SSR). On a semi-annual basis, AMCTES will provide comprehensive SSRs covering all current and recent AMC tests to HQ AMC/TE and agencies on a standard distribution list. The SSR will be published to DTIC.

3.6. Documentation of Temporary Modifications for T&E. HQ AMC/TE is the single POC for temporary (T-2) modification submissions for AMC. T-2 system modifications may be required to conduct OT. Use AF Form 1067 to process all temporary modification proposals for test (T-2 designation). Temporary modification approval is required to attach new or modified equipment, to introduce devices which radiate electromagnetic energy or to attach instruments for test data collection. Refer to DAFI 63-101/20-101 and DAFI 21-101, *Aircraft and Equipment Maintenance Management,* for specific guidance.

3.6.1. The AMC Configuration Review Board (CRB) shall approve all modifications on assets for which AMC is lead command according to DAFPD 10-9*, Lead Command/Lead Agent Designation and Responsibilities for United States Weapon Systems, Non-Weapon Systems, and Activities Systems*. **Exception:** AFMC may conduct a Configuration Control Board (CCB) to approve T-2 modifications on AMC lead command assets it possesses for T&E under the condition that the aircraft/equipment will be returned in the original or current approved permanent configuration when possession changes back to AMC. In these cases, an AMC CRB is not required. See AFMCI 21-126, *Temporary 2 (T-2) Modification of Aerospace Vehicles.*

3.6.2. The AFLCMC or AFSC Program Office of the system being modified shall approve modifications through the program engineering authority and CCB prior to being implemented. The T-2 modification can be accomplished following Program Office approval. HQ AMC/TE provides command certification of the AF Forms 1067 identified as a T-2.

3.6.3. AMC T-2 modification approval and provisions will be included in the AMC staff-approved test plan along with a Military Flight Release (MFR).

3.6.4. T-2 modifications will not be maintained on the system for longer than the approved test program requires. Systems will be returned to their original or current approved permanent configuration upon completion of the test. **Exception:** Upon successful completion of testing, the modification may be left on aircraft at the request of an AMC division chief for follow-on T&E with AFLCMC or AFSC approval. The program will then be turned over to the appropriate AMC directorate for tracking purposes until final time compliance technical order is accomplished and a permanent modification approved.

3.6.5. Modifications to Federal Aviation Administration certified aircraft should not cause the aircraft to lose its certification. All such modifications shall comply with DAFI 63-101/20-101.

3.6.6. Other Modifications. Temporary (T-1) and permanent modifications are used for operational requirements. T-2 designated modifications are not to be used as substitutes. Permanent modifications requiring full T.O. documentation is the responsibility of the PM/FM for the system. HQ AMC/TE reviews such modification proposals for the CRB to determine applicability for T&E.

3.6.7. Additional documentation for modifications may be required to include explosive atmosphere testing (most often for tanker and C-17 aircraft due to fuselage fuel containment), EMI/EMC, hazards of electromagnetic radiation to ordnance testing and ATTLA certification.

3.6.8. Release of Forms 1067s (of any type) outside of government channels is prohibited.

3.6.9. In addition to modification approval in the form of an MFR, any modification that includes electronic systems or software must be assessed for cybersecurity impacts, and coordinated with the Security Control Assessor (SCA), Authorizing Official (AO), and other affected parties, such as Information Owner (IOs)/Stewards and AOs of interconnected boundaries. The Cybersecurity Impact Evaluation Recommendation (CIER) is a means for the PM to coordinate system changes assessed for cybersecurity impacts with the SCA and AO. For full and independent operational testing, an Authority to Operate (ATO) (rather than an Interim Authority to Test (IATT)) may be required if operational testing and evaluation is being conducted in the operational environment or on deployed capabilities.

3.7. Use of Large Language Models (LLM) and Generative Artificial Intelligence (AI). Generative AI, including LLMs such as ChatGPT, are valuable tools that have proliferated across both private and public sectors. Experimentation with these new and rapidly evolving tools is highly encouraged, to include consideration of incorporating them into unclassified and non-sensitive workflows.

3.7.1. These models can save time, generate text, and provide initial answers to inquiries, but humans are still responsible for validating whether the LLM's outputs are true, accurate, and relevant, as well as whether outputs might be plagiarized or contain copyrighted material.

3.7.2. There are currently no Controlled Unclassified Information (CUI) approved LLM services (such as ChatGPT) available to AMC personnel. All CUI data will be treated per DoDI5200.48_DAFI16-1403, *Controlled Unclassified Information (CUI)*. The use of CUI in LLM services is prohibited at this time.

3.7.3. Anytime LLMs are used for official, unclassified work, that work must include a statement that a LLM was used to create some (or all) of the content. Users of LLMs are responsible for ensuring the content generated is truthful, accurate, relevant, not plagiarized and does not contain copyrighted material.

Chapter 4

RESOURCES

4.1. Resource Management. HQ AMC/TE plans and budgets for resources needed to support the AMC T&E program using O&M 3400 funds.

4.1.1. Test resources include, but are not limited to, personnel, flying hours, aircraft, test range support, M&S, instrumentation, T&E related travel and training, supplies and special equipment.

4.1.2. Test funds shall not be used to purchase test articles or for development of tactics, techniques, and procedures.

4.2. Resource Funding. HQ AMC/TE operates from the Operating Budget Account Number (OBAN) NH, Program Element (PE) 41898F (HQ Management Account). Test funds are managed by HQ AMC/TEP. All operating test funds executed are recorded and tracked through HQ AMC/TE-issued ESP codes which are assigned for each approved test by the TM. AMC manpower requirements will be accomplished with existing or Program Objective Memorandum (POM) approved dollars.

4.2.1. Resource Funding provides for both T&E day-to-day support, as well as test execution. The day-to-day mission includes Temporary Duty (TDY) travel, training and supplies for both HQ AMC/TE and AMCTES and its associated Detachment and OLs. Test execution activities include resources required for test range support, M&S, instrumentation, contracted data reduction and analysis and SAAMs.

4.2.2. Range costs at major range and test facility base facilities for OT&E may exceed budget limitations. AMC may mitigate budget limitations by cost sharing with other MAJCOMs and other Services.

4.2.3. Overseas Operations Costs (OOC) (formerly Direct Wartime and Enduring Costs (DWEC) or Overseas Contingency Operations (OCO)) funding may be applied when applicable.

4.3. Test Resource Requirements Planning.

4.3.1. HQ AMC/TEP sends out an annual call for OT requirements during the month of February to appropriate AMC 3-digit organizations and outside agencies requesting their next fiscal year (FY) T&E proposed test requirements. This call for test requirements is the first step in the annual test requirements process.

4.3.2. Military Personnel Appropriations (MPA) are manday sources for ANG and AFRC participation in T&E. The TMs provide an annual forecast of mandays required to HQ AMC/TEP for submission into the AMC POM. Quarterly updates and any short notice requirements are identified to HQ AMC/TEP as soon as they are known.

4.3.3. MPA support for conduct of tests not done under an AMC/TE test order are the responsibility of the organization conducting the test.

4.4. Aircraft Flying Hours for Test.

4.4.1. Flying Hours for Operational Test. HQ AMC/TEP POMs for flying hours for operational test through HQ AMC/A3T.

4.4.2. Flying Hours for Other Test Activities, including DT. Flying hours to support tests not done under an AMC/TE test order are the responsibility of the organization conducting the test. In some cases where AMC/TE is a Participating Test Organization (such as Joint Quick Reaction Tests), AMC/TE may supply flying hours.

4.5. AMC Test Program Resource Plans. AMC operational testers must plan and document all resources necessary for AMC-conducted OT for budget management and fiscal accountability.

4.5.1. TDs document resource plans in each test plan. Details shall include funding for AMCTES, HQ AMC/TE, and external agency TDYs, mandays, transportation and shipping costs, range support, instrumentation, aircraft, projected flying hours, service contract costs, SAAM requirements, special equipment, communication support and office supplies. TMs will ensure their costs are included in the Resource Plan.

4.5.2. TMs provide a summary of AMCTES and HQ AMC/TE requirements to the TE spend plan on a quarterly basis (or as required).

4.5.3. HQ AMC/TE may fund required outside agency TDY support through cross-organization function of the Defense Travel System (DTS) for:

4.5.3.1. Aircrew and maintenance personnel required for test execution that are additive to normal AMC Service Mission Schedule unit taskings.

4.5.3.2. Individuals required for on-site test planning and range support not funded by other sources.

4.5.4. Manday TDY support is funded through the augmentee's unit from funds provided to unit from HQ AMC/FM through a Military Interdepartmental Purchase Request (MIPR).

4.6. Test Resource Plans (TRP). A TRP is an AFOTEC test resource plan which identifies resources and timelines required to support AFOTEC-conducted IOT&Es, FOT&Es, MOT&Es, QOT&Es, OUEs or OAs. AFOTEC submits TRPs once a year (normally October) or twice a year (normally April and October) when T&E is within two years of planned execution. They are sent to the MAJCOMs as early as possible in the process by AFOTEC to allow resources to be submitted into the POM if required. HQ AMC/TE coordinates TRPs with the HQ AMC staff for supportability, accuracy, and commitment of future resources.

4.6.1. HQ AMC/TEP serves as the focal point for the TRP coordination process. TRPs are staffed to the appropriate AMC 3-digit organizations for coordination of resource requirements by the TM. TMs integrate coordinated inputs (including comments from earlier versions not incorporated) into a formal concur or non-concur letter signed by HQ AMC/TEP and directed back to AFOTEC through the TE organizational e-mail account by HQ AMC/TEP.

4.6.2. TRPs which only request air refueling support do not require HQ AMC staffing. TMs will ensure an Air Refueling Management System (ARMS) statement for submitting requested support is included in the Flying Hours section of the TRP and will also submit requirements to the AMC Service Mission Long Range Schedule when appropriate.

4.7. Resource Usage.

4.7.1. Testers must plan and conduct tests to take full advantage of existing or programmed test resources. Testers should reuse test assets when possible and eliminate duplication of effort to the maximum extent possible.

4.7.2. Funds allocated for specific test programs and transferred to other agencies must be used for the express intended purpose as identified on funding document. Under no circumstance may agencies use such funds for other purposes without written approval from HQ AMC/TE.

4.8. Obtaining Test Resources. HQ AMC/TE is responsible for coordinating resources for tests involving AMC personnel or equipment and the program manager/test requester shall ensure the proper level of priority is assigned to task support for the test effort. Program Offices or other external agencies shall provide a test support request memo for efforts not covered in a Memorandum of Agreement (MOA), Test and Evaluation Master Plan (TEMP), Test Strategy, TRP, or similar document. The memo shall be signed at the MAJCOM division-level (three digit) or equivalent. External support requests shall be validated from within HQ AMC at the same level in order to ensure the command expends resources on approved requirements. Finally, the request should not come from a test organization. The test organization should forward their specific requirements to the program's originator. Please reference **Attachment 3** for an example test support request. For other required coordination, reference **paragraph 1.5**. HQ AMC/TE may obtain test resources through the AMC staff by the following methods:

4.8.1. Requests for MAF aircraft and aircrew support requirements for T&E are made through the AMC/A3/10's Readiness-Driven Allocation Process (RDAP) by HQ AMC/TE. The timeline for submission is as early as 2 years but NLT 100 days prior to execution. Changes within 90 days of execution require Operations Management Division (AMC/A38) Functional Area Manager (FAM) approval. A HQ AMC/TE representative will act as the focal point for T&E requirements. RDAP (and the Magellan application) is the primary channel through which HQ AMC/TE secures aircraft and aircrew required for accomplishing T&E. Planned operational missions may be identified for testing on a non-interference basis. The RDAP working group typically meets the first week of every month to develop a draft allocation for the next three months and resolve conflicts between operational and training requirements. The goal is to solidify the 1st month (execution month), firm up the 2nd month, and create a soft plan for the 3rd month. This includes identifying periods where demand exceeds capacity at current levels of accepted risk to force and making recommendations on avoiding, mitigating, or accepting higher risk. If a test is out-prioritized due to unforeseen events, the 618AOC (TACC) Tactical Airlift Branch (TACC)/AADC and AMC/A38 will work with AMC/TE to reschedule the event as soon as possible.

4.8.1.1. Such requests for active-duty forces will be coordinated through the appropriate group or maintenance commander.

4.8.1.2. In the event the RDAP is not available or rescinded, AMC/TE may coordinate with the 618 AOC (TACC) to utilize Air Reserve Component (ARC) assets on long-term Military Personnel Appropriation (MPA), if available. At times, the ARC may be the only source of test assets or may volunteer to fill requirements. The TM shall communicate aircraft, aircrew and maintenance requirements with the candidate ARC unit. If the unit

agrees to participate, further coordination in the form of a 3-digit test support request memo must be submitted/coordinated through the appropriate AFRC or NGB HQ as appropriate.

4.8.2. JA/ATT missions, normally to support airdrop testing, may be used when practical according to JA/ATT CONOPS priority. The JA/ATT CONOPS outlines the request process. The user puts a request into the JA/ATT system. This may be coordinated through the 618 AOC (TACC). The mission must have tangible value to more than one Service to be credible for joint requirements.

4.8.3. SAAM requests for AMC-conducted tests shall be coordinated with HQ AMC/TE and submitted into the SAAM Request System through the Consolidated Air Mobility Planning System web portal at **https://campsweb.maf.ustranscom.mil** (users must apply for access). Begin the process as soon as practical in order to take advantage of the 10% discount offered for SAAMs scheduled 30 days in advance without any changes or delays in scheduling. SAAM requests for OT have a 3A1 priority in accordance with Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 4120.02E, *List of Priorities - Department of Defense Transportation Movement Priority System*.

4.8.4. Operational test units may recommend candidate units to HQ AMC/TE for T&E test support to include maintenance and operational personnel. HQ AMC/TE shall conduct final coordination.

4.8.5. HQ AMC/TE will coordinate the possession transfers of AMC and AMC lead command aircraft to AFMC for test purposes. Formal coordination must be arranged by HQ AMC/TE through the Current Operations Branch (HQ AMC/A38O) and Mobility Aircraft Division (HQ AMC/A4Q). Further information may be found in AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination,* and AFI 16-402, AFMC Supplement. **Note:** DT assist missions (normally data collection) use AMC or AMC lead command possessed assets and shall be low risk and require HQ AMC and ARC approval when applicable.

4.8.6. HQ AMC/TE will coordinate OT cybersecurity testing by reaching out to a cooperative penetration team to support the CVPA and the NSA-certified Red Teams to support the Adversarial Assessment (AA). These teams should be scheduled as soon as the test request has been received and validated due to limited availability of the assessment teams. OT&E will evaluate preliminary and final operational effectiveness and suitability of DoD systems with trained users in the presence of operationally representative cyber threats. All cyber T&E will ensure that intelligence-informed planning for cyber T&E includes the enemy's most likely and most dangerous courses of action tested in the most realistically available environment. Pursuant to DoDI 8585.01, *DoD Cyber Red Teams*, a DoD Cyber Red Team certified by the National Security Agency will conduct OT&E.

4.9. Aircrew Travel to Maintain Currency.

4.9.1. For the purpose of aircrew training and currency (i.e., MDS Vol 1s and Ready Aircrew Program (RAP) Tasking Memo (RTM)), AMCTES flyers are considered MAJCOM staff.

PHILIP G. MORRISON, Col, USAF
Director, Test and Evaluation

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

10 U.S.C. § 2350a, Cooperative research and development agreements: NATO organizations; allied and friendly foreign countries

10 U.S.C. § 2399, Operational test and evaluation of defense acquisition programs

AFI 10-601, *Operational Capability Requirements Documentation and Validation*, 27 April 2021

AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination*, 27 September 2019

AFI 16-402_AFMCSUP, *Aerospace Vehicle Programming Assignment Distribution, Accounting, and Termination*, 3 April 2020

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 33-324*, The Air Force Information Collections and Reports Management Program*, 22 July 2019

AFMAN 24-604, *Preparing Hazardous Materials for Military Air Shipments*, 9 October 2020

AFMCI 21-126, *Temporary 2 (T-2) Modification of Aerospace Vehicles*, 19 July 2005

AMCI 11-207, *Weapons and Tactics Program*, 2 January 2020

AMCI 11-208*, Mobility Air Forces Management*, 8 February 2017

AMCTES OI 91-202, *Operational Test Safety Planning*, 1 February 2017

CJCSI 4120.02E, *List of Priorities - Department of Defense Transportation Movement Priority System*, 12 February 2020

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

DAFI 63-101/20-101, *Integrated Life Cycle Management*, 16 February 2024

DAFI 65-601V1, *Budget Guidance and Procedures,* 22 June 2022

DAFMAN 11-260, *Tactics Development Program*, 17 March 2023

DAFMAN 11-401, *Aviation Management*, 27 October 2020

DAFMAN 63-119, *Mission-Oriented Test Readiness Certification*, 15 April 2021

DAFMAN 65-605V1, *Budget Guidance and Technical Procedures*, 31 March 2021

DAFPD 10-9*, Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities,* 25 May 2021

DoDD 5000.01, *The Defense Acquisition System,* 9 September 2020

DoDD 5230.25, *Withholding of Unclassified Technical Data from Public Disclosure*, 6 November 1984

DoDI 4540.07, *Operation of the DoD Engineering for Transportability and Deployability Program*, 19 February 2016

DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, 23 January 2020

DODI 5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation*, 9 December 2021

DoDI 5010.41, *Joint Test and Evaluation (JT&E) Program*, 12 September 2005

DoDI 5200.48_DAFI16-1403, *Controlled Unclassified Information (CUI)*, 5 October 2021

DoDI 5230.24, *Distribution Statements on DoD Technical Information*, 10 January 2023

DoDI 8585.01, *DoD Cyber Red Teams*, 11 January 2024

MIL-STD-1791-1, *Department of Defense Design Criteria Standard*, *Criteria for Nonstandard Airdrop Equipment and Payloads,* 16 May 2016

T.O. 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution,*1 September 2015

Prescribed Forms

None

Adopted Forms

AF Form 1067, *Modification Proposal*

AF Form 813, *Request for Environmental Impact Analysis*

AFTO Form 22, *Technical Manual (TM) Change Recommendation and Reply*

AFTO Form 27, *Preliminary Technical Order (PTO) Publication Change Request (PCR)/TO Verification Record/Approval*

AMCTES Form 214, *Test Safety Review*

DAF Form 847, *Recommendation for Change of Publication*

DTIC Form 55, *Request for Release of Limited Document*

Abbreviations and Acronyms

AA—Adversarial Assessment

AATC—Air National Guard Air Force Reserve Command Test Center

ACAT—Acquisition Category

AF—Air Force

AFI—Air Force Instruction

AFIMSC—Air Force Installation and Mission Support Center

AFLCMC—Air Force Life Cycle Management Center

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFMED—Air Force Medical Agency

AFOTEC—Air Force Operational Test and Evaluation Center

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFSC—Air Force Sustainment Center

AI—Artificial Intelligence

ALC—Air Logistics Complex

AMC—Air Mobility Command

AMCI—AMC Instruction

AMCTES—Air Mobility Command Test & Evaluation Squadron

AN—Accession Number (DTIC Report Reference Number)

ANG—Air National Guard

AO—Assessment Objective/Authorizing Official

AOC—Air Operations Center

ARC—Air Reserve Component

ARMS—Air Refueling Management System

ATEC—Army Test and Evaluation Command

ATO—Authority to Operate

ATTL—Air Transportability Test Loading

ATTLA—Air Transportability Test Loading Activity

CCB—Configuration Control Board

CI—Critical Information

CIER—Cybersecurity Impact Evaluation Recommendation

CJCSI—Chairman of the Joint Chiefs of Staff Instruction

COI—Critical Operational Issue

COMAFFOR—Commander Air Force Forces

CONEMP—Concept of Employment

CONOPS—Concept of Operations

COTS—Commercial Off The Shelf

CRB—Configuration Review Board

CTP—Critical Technical Parameter

CTT—Cyber Table Top

CUI—Controlled Unclassified Information

CVA—Cooperative Vulnerability Assessment

CVI—Cooperative Vulnerability Identification

CVPA—Cooperative Vulnerability and Penetration Assessment

DRR—Demo Readiness Review

DARPA—Defense Advanced Research Projects Agency

DoD—Department of Defense

DoDD—Department of Defense Directive

DoDI—Department of Defense Instruction

DOT&E—Director, Operational Test and Evaluation

DRB—Deficiency Review Board

DT—Developmental Test

DT&E—Developmental Test & Evaluation

DTIC—Defense Technical Information Center

DTS—Defense Travel System

DWEC—Direct Wartime and Enduring Costs

EMC—Electromagnetic Compatibility

EMD—Engineering and Manufacturing Development

EMI—Electromagnetic Interference

EOA—Early Operational Assessment

ESP—Emergency and Special Program (Code)

EXRR—Experiment Readiness Review

FAM—Functional Area Manager

FCT—Foreign Comparative Test

FDE—Force Development Evaluation

FM—Functional Manager

FMP—Foreign Materiel Program

FMxC2—Field Maintenance Command and Control

FOFT—Follow on Flight Testing

FOIA—Freedom of Information Act

FOT&E—Follow-On Operational Test and Evaluation

FRP—Full-Rate Production

FY—Fiscal Year

HPT—High Performance Teams

IATT—Interim Authority to Test

IAW—In Accordance With

IDPT—Integrated Demonstration Planning Team

IO—Information Owner

IOT&E—Initial Operational Test and Evaluation

ISE—Integrated Systems Evaluation

ISR—Interim Summary Report

IT—Information Technology

ITT—Integrated Test Team

IXPT—Integrated Experiment Planning Team

JA/ATT—Joint Airborne/Air Transportability Training

JCTD—Joint Capability Technology Demonstration

JRMET—Joint Reliability and Maintainability Evaluation Team

JT&E—Joint Test and Evaluation

LDTO—Lead Developmental Test Organization

LFT&E—Live Fire Test and Evaluation

LGST—Logistics Service Test

LLM—Large Language Models

LRIP—Low-Rate Initial Production

MAF—Mobility Air Forces

MAJCOM—Major Command

MBCRA—Mission Based Cyber Risk Assessments

MCOTEA—Marine Corps Operational Test and Evaluation Activity

M4S—Manpower MPA Manday Management System

MDA—Missile Defense Agency

MDAP—Major Defense Acquisition Program

MEP—Mission Essential Personnel

MFR—Military Flight Release

MIPR—Military Interdepartmental Purchase Request

MOA—Memorandum of Agreement

MOT&E—Multi-Service Operational Test and Evaluation

MPA—Military Personnel Appropriations

MRAP-C—Mission-based Risk Assessment Process for Cyber

M&S—Modeling and Simulation

MS—Milestone

NDI—Non-Developmental Item

NGB—National Guard Bureau

NIPR—Non-Classified Internet Protocol Router

NSA—National Security Agency

OA—Operational Assessment

OBAN—Operating Budget Account Number

OCO—Overseas Contingency Operations

OL—Operating Location

O&M—Operations and Maintenance

OOC—Overseas Operations Costs

OPR—Office of Primary Responsibility

OPSEC—Operations Security

OPTEVFOR—Operational Test and Evaluation Force

OSD—Office of the Secretary of Defense

OT—Operational Testing

OT&E—Operational Test and Evaluation

OTA—Operational Test Agency

OTO—Operational Test Organization

OUE—Operational Utility Evaluation

PE—Program Element

PM—Program Manager

POC—Point of Contact

POM—Program Objective Memorandum

PTO—Preliminary Technical Order

PTP—Proposed Test Plan

QOT&E—Qualification Operational Test and Evaluation

QT&E—Qualification Test and Evaluation

QSR—Quarterly Status Report

RAP—Ready Aircrew Program

R&M—Reliability and Maintainability

RDT&E—Research, Development, Test & Evaluation

RDAP—Readiness-Driven Allocation Process

RM—Risk Management

RMA—Reliability, Maintainability and Availability

RTM—Ready Aircrew Program Tasking Memo

SAAM—Special Assignment Airlift Mission

SCA—Security Control Assessor

SIPR—Secret Internet Protocol Router

SITREP—Situation Report

SRB—Safety Review Board

SRR—Squadron Report Review

SSR—Semi-annual Status Report

SUT—System Under Test

TACC—Tanker Airlift Control Center

TAFMS—Total Air Force Military Service

TD—Test Director

TD&E—Tactics Development and Evaluation

TDY—Temporary Duty

T&E—Test and Evaluation

TEMP—Test and Evaluation Master Plan

TIMS—Test Information Management System

TIPT—Test Integrated Product Team

TM—Test Manager, Technical Manual

T.O.—Technical Order

TORC—Test Order Review Committee

TRB—Technical Review Board

TRP—Test Resource Plan

TRR—Test Readiness Review

TTP—Tactics, Techniques, and Procedures

Office Symbols

618 AOC (TACC)—618th Air Operations Center (Tanker Airlift Control Center)

618 AOC (TACC)/AAD—Airlift Allocation Division

618 AOC (TACC)/AADC—Tactical Airlift Branch

618 AOC (TACC)/ARD—Air Refueling Division

AFMED/SG5—Capability Development Division

AFMED/SG5T—Operational Medicine Test & Evaluation Branch

AMC/A10N—Nuclear Operations Division

AMC/A3/10—Directorate of Operations, Strategic Deterrence & Nuclear Integration

AMC/A38—Operations Management Division

AMC/A38O—Current Operations Branch

AMC/A3T—Training Operations Division

AMC/A3V—Standardization and Evaluation Division

AMC/A3VX—Combat Airlift Operations Branch

AMC/A4—Directorate of Logistics, Engineering & Force Protection

AMC/A4Q—Mobility Aircraft Division

AMC/A5/8—Directorate of Strategy, Plans, Requirements & Programs

AMC/A5Q—Acquisition Transformation Division

AMC/A6—Directorate of Communications

AMC/A6T—Chief Technology Officer

AMC/A6X—Plans, Policy & Resources Division

AMC/A8C—Capability Development Division

AMC/A8X—Plans and Strategy Division

AMC/IP—Information Protection

AMC/JA—Judge Advocate

AMC/JAA—Administrative Law Division

AMC/SE—Directorate of Safety

AMC/SEF—Aviation Safety Division

AMC/SEG—Occupational Safety Division

AMC/SEW—Weapons Safety Division, Directorate of Safety

AMC/SEW—Weapons, Space and Nuclear Safety Division

AMC/TE—Test and Evaluation Directorate

AMC/TEA—Mobility Test Management Division

AMC/TEP—Policy and Resources Division

AMCTES—Air Mobility Command Test and Evaluation Squadron

ASD(R&E)—Office of the Assistant Secretary of Defense (Research and Engineering)

Terms

Acquisition Category (ACAT)—Acquisition categories determine the level of review, decision authority and applicable T&E policies and procedures. They facilitate decentralized decision-making, execution and compliance with statutorily imposed requirements (See DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, Enclosure 2).

Adversarial Assessment (AA)—Determines operational effectiveness and suitability of a unit equipped with a system to support its missions while withstanding validated and representative cyber threat activity.

Air Transportability Test Loading (ATTL)—A trial aircraft loading of a cargo item(s) that due to its physical size, weight, fragility, hazardous characteristics or lack of adequate means of constraint might be considered a problem that requires evaluation for air transportability certification.

Assessment Objective (AO)—A specific question for OAs with conditional answers (not necessarily yes or no) to be examined by users concerning progress toward or potential of operational effectiveness, suitability or capability of a system, process or tactic to perform the intended mission. Criteria for "potential" shall be established during ITTs for inclusion in test plans.

Cooperative Vulnerability Penetration Assessment (CVPA)—Consists of an overt and cooperative review of the system to ID all significant vulnerabilities and the risk of exploitation of those vulnerabilities on a mature system.

Critical Operational Issue (COI)—A key question to be examined by operational testers and users when evaluating overall operational effectiveness, suitability or capability of a system, procedure or tactic to achieve operational capabilities. AMC uses effectiveness and suitability as a standard.

Critical Technical Parameter (CTP)—Measurable critical system characteristics that, when achieved, allow the attainment of operational performance requirements. They are technical measures derived from user requirements. Failure to achieve a critical technical parameter should be considered a reliable indicator that the system is behind in the planned development schedule or will likely not achieve an operational requirement.

Deficiency Report (DR)—The generic term used within the USAF to record, submit and transmit deficiency data which may include, but is not limited to, a Deficiency Report involving quality, materiel, software, warranty or informational deficiency data submitted using Standard Form (SF) 368 or equivalent format according to T.O. 00-35D-54.

Demonstration—DoD demonstrations are typically scripted and orchestrated activities that minimize the risk that the solution demonstrated will fail. They are primarily intended to display a solution's military utility in specific operational environments to people unfamiliar with the

technology or concept or to senior leaders responsible for making decisions regarding its employment, deployment, or acquisition in order to garner support for the technology or concept.

Developmental Test and Evaluation (DT&E)—Test and evaluation conducted to evaluate design approaches, validate analytical models, quantify contract technical performance and manufacturing quality, measure progress in system engineering design and development, minimize design risks, predict integrated system operational performance (effectiveness and suitability) in the intended environment and identify system problems (or deficiencies) to allow for early and timely resolution. DT&E includes contractor testing and is conducted over the life of the system to support acquisition and sustainment efforts.

Direct War and Enduring Costs (DWEC)—Formerly Overseas Contingency Operations (OCO) OSD's FY22 strategy is to move what was previously referred to as OCO to baseline requirements. Congress has allowed those requirements to remain but are requiring the AF to track expenditures separately from their baseline dollars. DWEC will still be required to be ESP coded based on the operation the funding will be supporting.

Early Operational Assessment (EOA)—An operational assessment (OA) conducted before MS B. An EOA assesses the design approach sufficiently early in the acquisition process to assure it has the potential to fulfill user requirements. (See Operational Assessment.)

Experimentation—An iterative process for developing and assessing concept-based hypotheses to identify and recommend the best value-added solutions for changes in doctrine, organization, training, materiel, leadership and education, personnel, and facilities and policy required to achieve significant advances in future joint operational capabilities. Experimentation can include live, virtual and constructive activities to provide a "low-risk" environment to explore and assess new or refined concepts, processes, technology, tactics, techniques and procedures. Exercises are not an explicit experimentation activity but can provide a venue to explore some limited experimentation objectives.

Follow-On Test & Evaluation (FOT&E)—FOT&E is the continuation of OT&E after IOT&E or QOT&E or OUE and is conducted only by AFOTEC. It answers specific questions about unresolved COIs and test issues; verifies the resolution of deficiencies or shortfalls determined to have substantial or severe impact(s) on mission operations; or completes T&E of those areas not finished during OT&E, QOT&E, or OUE.

Force Development Evaluation (FDE)—FDE is a type of dedicated OT&E performed by MAJCOMs in support of MAJCOM-managed system acquisition-related decisions prior to initial fielding or for subsequent system sustainment or upgrade activities. Use of OUE or FDE to support MAJCOM-managed acquisition decisions is at the discretion of the appropriate MAJCOM staff or test organization.

Foreign Comparative Test (FCT)—A DoD Test and Evaluation (T&E) program that is prescribed in Title 10 U.S.C. § 2350a(g), Side-By-Side Testing, and is centrally managed by the Comparative Testing Office, Office of the Assistant Secretary of Defense (Research and Engineering) (ASD(R&E)). It provides funding for U.S. T&E of selected equipment items and technologies developed by allied countries when such items and technologies are identified as having good potential to satisfy valid DoD requirements.

Functional Manager (FM)—This instruction uses the term FM for an individual or organization responsible for the management or oversight of an on-going activity, system or item.

Hypothesis—Classic experiments are built around a hypothesis that clearly states the proposed causal relationship, typically in an if-then statement. For example, a hypothesis might read: ***If*** *a Hellfire missile is mounted on and fired from a reconnaissance drone,* ***Then*** *the kill-chain will be shortened.* This hypothesis is composed of an independent variable in the "If" statement, "a Hellfire missile is mounted on and fired from a reconnaissance drone," and a dependent variable in the "Then" statement, "the kill-chain will be shortened." In addition to the independent and dependent variables are intervening variables that impact the relationship between the dependent and independent variables. Examples might include level of training of the participants, skill of the pilots, and weather. Experiments then manipulate the independent variable to see if/how the dependent variable is affected. Classic experiments are conducted systematically following scenarios under very controlled conditions in order to increase the confidence that the relationship is valid. In ideal experiments, only one independent variable is manipulated at a time, while all intervening variables are controlled.

Initial Operational Test and Evaluation (IOT&E)—IOT&E is only conducted by AFOTEC. AFOTEC determines the operational effectiveness and suitability of the items under test using production or production-representative articles with stabilized performance and operationally representative personnel. Additionally, AFOTEC will resolve the mission capability of the system. Tests are conducted under operational conditions, including combat mission scenarios that are as operationally realistic as possible. IOT&E determines if operational requirements and COIs have been satisfied and assesses system impacts to peacetime and combat operations. A dedicated phase of IOT&E is required for new ACAT I and II programs according to Title 10 U.S.C. § 2399, Operational test and evaluation of defense acquisition programs. Dedicated IOT&E is also required for all OSD OT&E oversight programs according to DoDI 5000.02.

Integrated Decision Support Key (IDSK)—A table that identifies DT, OT, and LF data requirements needed to inform critical acquisition and engineering decisions (e.g., milestone decisions, key integration points, and technical readiness decisions). OT&E and DT&E use the IDSK to independently develop evaluation frameworks or strategies that will show the correlation and mapping between evaluation focus areas, critical decision points, and specific data requirements.

Integrated Testing—The collaborative planning and collaborative execution of test phases and events to provide shared data in support of independent analysis, evaluation and reporting by all stakeholders, particularly the developmental (both contractor and government) and OT&E communities.

Joint Test and Evaluation (JT&E)—An OSD-sponsored T&E program conducted among more than one military Service to provide T&E information on combat operations issues and concepts. JT&E does not support system acquisition (DoDI 5010.41, *Joint Test and Evaluation (JT&E) Program*).

Lead Developmental Test Organization (LDTO)—The lead government developmental test organization on the ITT that is most qualified to conduct and/or be responsible for overseeing a confederation of DT&E organizations, each with different but necessary skills, in support of an acquisition program.

Live Fire Test and Evaluation (LFT&E)—The firing of actual weapons (or surrogates if actual weapons are not available) at components, subsystems, sub-assemblies, and/or full-up, system-

level targets or systems to examine personnel casualties, system vulnerabilities, or system lethality; and the evaluation of the results of such testing.

Logistics Service Test (LGST)—Assessment of the operational effectiveness and suitability of specific systems and subsystems accomplished when FDEs are not practical. LGSTs are smaller in scope than FDEs and address product improvements, reliability, maintainability and logistics supportability of proposed systems and subsystems. Form, fit and function replacement items proposed by Air Logistics Complexes are typical LGST candidates.

Logistics Supportability—The degree to which the planned product support allows the system to meet its availability and wartime usage requirements. Planned product support includes the following: test, measurement, and diagnostic equipment; spare and repair parts; technical data; support facilities; transportation requirements; training; manpower; and software.

Magellan—A software program used by AMC staff to plan, predict, apportion, and allocate aircrews and aircraft. It exists on both NIPR and SIPR networks.

Multi-Service Operational Test and Evaluation (MOT&E)—MOT&E can be IOT&E, QOT&E or FOT&E when two or more military Services are involved. It can also be a Multi-Service FDE if a MAJCOM is the lead test organization.

Operational Assessment (OA)—An analysis of progress toward operational capabilities made by an executing test organization, with user support as required, on other than production systems. The focus of an operational assessment is on significant trends noted in development efforts, programmatic voids, areas of risk, adequacy of requirements, and the ability of the program to support adequate OT. OAs may be made at any time using technology demonstrators, prototypes, mockups, engineering development models or simulations, but will not substitute for the dedicated OT&E necessary to support full production decisions.

Operational Test Agency (OTA)—An independent agency reporting directly to the Service Chief that plans and conducts OT, reports results, and provides evaluations of overall operational capability of systems as determined by effectiveness, suitability and other operational considerations. Each Service has one designated OTA according to DoDD 5000.01, *The Defense Acquisition System*: AFOTEC is the OTA for the AF. The Navy has the Operational Test and Evaluation Force (OPTEVFOR). The Army has the Army Test and Evaluation Command (ATEC). The Marine Corps has the Marine Corps Operational Test and Evaluation Agency (MCOTEA).

Operational Test & Evaluation (OT&E)—The field testing, under realistic combat conditions, of any item of (or key component of) weapons, equipment or munitions for the purpose of determining the effectiveness and suitability of the weapons, equipment or munitions for use in combat by typical military users, and the evaluation of the results of such test. Test and evaluation conducted in as realistic an operational environment as possible to estimate the prospective system's operational effectiveness, suitability and operational capabilities. In addition, OT&E provides information on organization, personnel requirements, doctrine and tactics. It may also provide data to support or verify material in operating instructions, publications and handbooks. **Note:** The generic term OT&E is often substituted for IOT&E, QOT&E, FOT&E, OUE, FDE and TD&E and depending on the context, can have the same meaning as those terms.

Operational Test Organization (OTO)—A generic term for any organization that conducts operational testing as stated in its mission directive.

Operational Utility Evaluation (OUE)—Evaluations of military capabilities conducted to demonstrate or validate new operational concepts or capabilities, upgrade components or expand the mission or capabilities of existing or modified systems. AFOTEC or MAJCOMs may conduct OUEs whenever a dedicated OT&E event is required, but the full scope and rigor of a formal IOT&E, QOT&E, FOT&E or FDE is not appropriate or required. OUEs may be used to support operational decisions (e.g., fielding a system with less than full capability) or acquisition-related decisions (e.g., low-rate production) when appropriate throughout the system lifecycle. OUEs will not be used when IOT&E, QOT&E, FOT&E or FDE are more appropriate per existing guidance and definitions.

Oversight Program—A program on the OSD T&E Oversight List for DT&E, LFT&E, and/or OT&E. The list includes all major defense acquisition programs (e.g., ACAT I), major automated information systems (e.g., ACAT IA), and any other programs selected for 3106 OSD T&E Oversight IAW 10 U.S.C. § 2430(a)(1). These programs require additional documentation and have additional review, reporting and approval requirements.

Participating Test Organization—Any test organization required to support a lead test organization by providing specific T&E data or resources for a T&E program or activity.

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. This instruction uses the term "PM" for any designated person in charge of acquisition activities at various organizational levels (MAJCOM, AFLCMC or other agencies and Services). Refer to DODI 5000.89_DAFI 99-103 definitions for additional applications.

Qualification Operational Test & Evaluation (QOT&E)—A tailored type of IOT&E conducted only by AFOTEC. It is used to evaluate military-unique portions and applications of COTS, NDI and GFE for military use in an operational environment when little or no government-funded R&D takes place.

Qualification Test & Evaluation (QT&E)—A tailored type of DT&E conducted for COTS items, NDI and GFE.

Readiness-Driven Allocation Process (RDAP)—The process by which AMC allocates mobility resources in order to support USTRANSCOM validated missions and joint warfighter training requirements while maintaining AMC readiness levels for future operational requirements.

Readiness-Driven Allocation Process Working Group (RDAP WG)—Action officer-level group primarily responsible for developing and coordinating the allocation plan. Membership includes AMC staff, as well as operational wings.

Sufficiency of Test Review (SOTR)—An examination by MAJCOM operational testers of all available test data to: (1) determine if adequate testing has been accomplished for programs of limited scope and complexity; and (2) to assess the risk of fielding or production on a system that may not have had a dedicated OT&E. HQ AMC/TE will provide test requesters with information to determine risk factors of not doing formal OT, as applicable.

Tactics Development & Evaluation (TD&E)—A tailored type of FDE conducted to refine doctrine, system capabilities, and TTPs throughout a system's life cycle. TD&Es normally identify non-materiel solutions to problems or evaluate better ways to use new or existing systems.

HQ AMC/TE shall test and evaluate tactics once developed. See AFI 11-260 and AMCI 11-207 for the tactics development process and agency responsibilities.

Test Director (TD)—The TD is the AMCTES project officer for a specific test. They are responsible for all aspects of the test, from planning to execution to reporting. The TD builds a test project strategy that collects required data in the most efficient and effective way, with respect to cost and schedule. TDs work hand-in-hand with the AMC/TE TM to attain required support for test projects. They participate in ITTs. During test execution the TD is the focal point concerning all day-to-day test decisions. The TD provides a comprehensive report of findings, results, and conclusions for AMC decision-makers. Both the TD and TM must work together as a team to ensure an effective, efficient, and responsive test project.

Test and Evaluation (T&E)—The act of generating empirical data during the research, development, or sustainment of systems, and the creation of information through analysis that is useful to technical personnel and decision makers for reducing design, acquisition and operational risks. The process by which systems are measured against requirements and specifications and the results analyzed to gauge progress and provide feedback.

Test and Evaluation Master Plan (TEMP)—Documents the overall structure and objectives of the T&E program. It provides a framework within which to generate detailed T&E plans and it documents schedule and resource implications associated with the T&E program. The TEMP identifies the necessary developmental, operational, and live-fire test activities. It relates program schedule, test management strategy and structure, and required resources to: COIs; CTPs; objectives and thresholds documented in the requirements document and milestone decision points.

Test Manager (TM)—The AMC/TE TM is responsible for the overall management of assigned test projects. They are the HQ on-site member of the test team and the TD's primary interface within HQ AMC. The TM works closely with the TD to obtain support and resources needed to conduct a test project. TMs can secure support from external agencies, submit requests for SAAMs and coordinate test documentation through the AMC staff. They also review test requests, develop test orders, chair or attend ITTs, staff test plans and reports and may observe/assist during test execution. Both the TD and TM must work together as a team to ensure an effective, efficient and responsive test project.

Test Resource Plan (TRP)—The single document AFOTEC uses to request personnel and other resource support for OT&E from MAJCOMs and other agencies.

User—Refers to the primary command operating a system, subsystem, item of equipment, procedure or tactic, and generally applies to the terms "using command", "operator", "maintainer", "warfighter", or "customer". The term "user" is preferred in this instruction for test requesters.

Attachment 2

AATC PROCESS WHEN WORKING WITH HQ AMC/TE

A2.1. AATC. AATC is an independent OTO that plans, executes, and reports on ARC-related, MAJCOM and DoD (as assigned) T&E. When conducting MAF operational testing, AATC will:

A2.1.1. Interpret and ensure compliance with DoD and HQ USAF policy, and MAJCOM T&E guidance.

A2.1.2. Coordinate with NGB/A5/8 and AFRC/A5/8 to determine priority, scheduling and execution of AATC-assigned T&E.

A2.1.3. Assign a project manager for all tests. The project manager will lead planning, execution and reporting of all test activities.

A2.1.4. Coordinate Air Reserve Component-generated T&E test order requests with AMC/TE. Send AATC/CC-signed test requests and draft test order, along with all necessary background information to AMC/TE to support issuance of an approved test order.

A2.1.5. Receive test orders for active duty generated requirements (e.g., AMC divisions and Program Office) following the process outlined in **paragraph 2.3**. AMC/TE initiated test requests and orders will be pre-coordinated between the AMC/TE and AATC Test Management at **162.wg.aatc.test.management.directorate.org@us.af.mil**.

A2.1.6. Work with appropriate Program Offices to co-chair ITTs. ITTs will establish resource requirements as well as organizational responsibilities with milestones, timelines and OPRs.

A2.1.7. Assist in developing capabilities-based requirements.

A2.1.8. Uses internal and corporate T&E processes to develop test plans and reports once tasked. Distribution of plans and reports is IAW established T&E guidelines.

A2.1.9. Initiates Section 1 of AF Form 813, *Request for Environmental Impact Analysis*, and submit to host base(s) for analysis, as required. All AMC conducted testing (including experimentation or demonstration) will consider the potential need for an environmental impact analysis. If required, or if the requirement is in question, the host base(s) civil engineering office will be consulted.

A2.2. For AATC conducted tests, HQ AMC/TE:

A2.2.1. Uses the AATC Test management email account, **162.wg.aatc.test.management.directorate.org@us.af.mil**, for all test management coordination.

A2.2.2. Provides AMC coordination and approval for test plans and test reports conducted under an AMC test order.

A2.2.3. Participates in on-going ITTs as needed in order to coordinate test planning, execution and reporting efforts.

A2.2.4. Provides a formal response to AATC document reviews within 30 calendar days from receipt.

A2.2.5. Test managers will confirm HQ AFRC or National Guard Bureau (NGB) requirements for AATC test order requests to identify similar work and follow-on logistic requirements incurred by AMC and the status of supporting documents (e.g., AF Forms 1067).

A2.3. HQ AMC manday process: HQ AMC will program for mandays for field test participants when AATC is executing OT under an AMC test order.

A2.3.1. Data call for AMC POM. During December or January, HQ AMC will send a tasker to AATC soliciting requirements for the two-year out POM. Information should include: test order number, description of test, duration by notional dates, how many days/members broken down by officer and enlisted, AFSCs and priority and impact if not supported.

A2.3.2. Allocation of mandays for current year. HQ AMC/TEP will inform AATC when the mandays are approved for the current FY. AATC will submit detailed requirements for each test/project based on the allotment. Information should include the following: Name of project manager, test/project, test dates, type of aircraft, guard or reserve status, test location, rank/name/AFSC of member(s), member's unit, phone number, SSN, security clearance, Total Air Force Military Service (TAFMS) and tour dates.

A2.3.3. Mid-year review. During March of the current FY, a mid-year review is accomplished to see if additional days are needed. If there are emergent requirements, HQ AMC/TEP will submit them in the Manpower MPA Manday Management System (M4S). HQ AMC/TEP will need the same information from AATC as in **paragraph A2.3.2**, along with justification for the late requirement and impact if not supported.

Attachment 3

EXAMPLE TEST/DEMONSTRATION/EXPERIMENTATION REQUEST

Table A3.1. Example Test Request.

FROM: (division/three letter-level or higher)

SUBJECT: Request for Operational Test and Evaluation (OT&E) for (proposed title)

1. Test Purpose. Provide a general statement of the overall purpose of the test. State why the test is required and how the results will be used.

2. Need Date. Provide the date test results are needed and impact if not met. It takes approximately 90 days from test request receipt to produce an approved test plan and 50 calendar days after the last test event to produce a final report. **Note:** Test acceleration may require additional resources or overall OT&E prioritization.

3. System Description. Provide a general description of the system, article, procedure, or tactic to be tested, including unique features which set it apart from other items of that type.

4. Background. Describe the historical background leading to this OT&E requirement including previous T&E efforts; significant facts, events, and dates should be included. Summarize the operational requirement which led to the development or the modification of the existing system, article, or tactic. Indicate whether the system, article or tactic is in the advanced development, full-scale development, production phase, off-the-shelf production or in the DoD inventory. Please state if the item has gone through any previous testing in the past and if so, who conducted the test. Also state whether the item has already been funded/procured for testing, who currently possesses the item and how you plan to get the item to the test location.

5. Operational, Logistics, Cybersecurity, and Training Concepts. Describe the primary mission scenarios and wartime use of the system. Is it stated in a CONOPS/CONEMP, document or message? This may include primary and alternate missions, system interfaces, day or night sortie rates, surge rates, accuracy, system and weapons numbers, altitudes, profiles, duration, hours per day, numbers of operators, dormancy, shelf life, durability, contractor involvement and typical operating environment.

6. Notional criteria. These must be objective and measurable to establish evaluation criteria.

7. Additional Funding. Funding plan including sources external to HQ AMC/TE.

8. Additional Information. Submit any available documentation (as attachments) that may help to evaluate the proposal and design a test order. Examples are dimensional drawings, photographs, operator manuals, checklists, owner manuals, technical brochures, laboratory, and engineering test reports, AFLCMC certifications, previous AMC Configuration Review Board approval memorandums, risk management assessments, safety reviews, environmental impact reviews, part numbers, and dimensions and weight of the item to be tested as required.

9. Points of Contact. List the name, title, agency/office symbol, location, and DSN telephone number of all key points of contact including the test requirement generator and anyone who can provide additional information on the test article, procedure or tactic.

Table A3.2. Example Demonstration/Experimentation Request.

FROM: (division/three letter-level or higher)

SUBJECT: Request for Demonstration/Experimentation Support for (proposed title)

1. Demo/Experiment Purpose. Provide a statement of the overall purpose of the demonstration or experiment. State why the event is being conducted, and how the results will be used.

2. Timeline. Provide the best available information about the intended timeline, to include when/if a specific decision is being supported.

3. System Description. Provide a general description of the system, article, procedure, or tactic to be demonstrated or experimented with.

4. Background. Describe the historical background leading to this effort; significant facts, events, and dates should be included. Please state if the item has gone through any previous testing in the past and if so, who conducted the test. Also state whether the item has already been funded/procured or approved for flight/use by a program office (i.e., T-2 1067, Military Flight Release, or Approval to Operate (ATO)). Identify who currently possesses the item and how you plan to get the item to the intended demo/experiment location.

5. Operational, Logistics, Cybersecurity, and Training Concepts. Describe the primary mission scenarios and wartime use of the system. Is it stated in a CONOPS/CONEMP, document or message? This may include primary and alternate missions, system interfaces, day or night sortie rates, surge rates, accuracy, system and weapons numbers, altitudes, profiles, duration, hours per day, numbers of operators, dormancy, shelf life, durability, contractor involvement and typical operating environment.

6. Notional statement of what is being demonstrated, or hypothesis that the experiment supports.

7. Funding. Funding plan for the planned event(s).

8. Additional Information. Submit any available documentation (as attachments) that may help to evaluate the ability of AMC/TE to support. Examples are dimensional drawings, photographs, operator manuals, checklists, owner manuals, technical brochures, laboratory and engineering test reports, AFLCMC certifications, previous AMC Configuration Review Board approval memorandums, risk management assessments, safety reviews, environmental impact reviews, part numbers, and dimensions and weight of the item to be tested as required.

9. Points of Contact. List the name, title, agency/office symbol, location, and DSN telephone number for the primary program manager or lead for the demo/experiment, along with any other key points of contact.

Attachment 4

RECOMMENDED AGREEMENT FOR AIR MOBILITY COMMAND (AMC) EVALUATION OF UNSOLICITED ARTICLES, DISCLOSURES, INVENTIONS, AND VOLUNTARY PROPOSALS FOR CONTRACTS

A4.1. Terms and Conditions. Prior to the acceptance of any article of equipment, material or disclosure of information for evaluation or testing by AMC, the following terms and conditions must be understood and agreed to by the individual, firm or corporation submitting such article, invention or disclosure.

A4.2. Liability. AMC's acceptance of items for test and evaluation to assess potential usefulness to the AF does not imply a promise to pay; recognition of novelty, originality, or uniqueness; or a contractual relationship such as would render the government liable to pay for any use of information to which it would otherwise be entitled. AMC's test and evaluation of voluntary submissions will in no way obligate the government or AF to procure experimental, production or other quantities of the article submitted or the item covered by disclosure.

A4.3. Responsibility. Due care will be exercised in handling and testing voluntary submissions. The government will assume no responsibility or liability to submitters or others for the following matters:

A4.3.1. Damages to, destruction of or loss of voluntary submissions resulting from testing activities or otherwise.

A4.3.2. Damages or injuries due to negligence or other causes which are incurred or suffered by submitters, authorized agents or employees whether or not AF personnel are participating in the test.

A4.4. Cost Acceptance. The manufacture, transportation and maintenance of articles submitted to the government for evaluation or testing will be accomplished without cost to the government. Known human health, safety and environmental risks related to the article or system will be communicated in the submission.

A4.5. Disposition. Submitters may furnish instructions to the government concerning the disposal of voluntary submissions provided such instructions are furnished prior to the completion of the tests or evaluations. Any disposal, IAW such instructions, shall be at the expense of the submitter. In the absence of such instructions, prior to the completion of the tests or evaluations, the government will dispose of such property IAW established procedures.

A4.6. Federal Acquisition of Data. All data voluntarily submitted to the government as part of an unsolicited proposal will be handled IAW paragraph 15.608 and 15.609 of the Federal Acquisition Regulation.

A4.7. Agreements. Unsolicited articles or disclosures are submitted and received IAW this agreement, notwithstanding any contrary or inconsistent conditions imprinted on or submitted together with such articles or disclosures or orally expressed.

A4.8. Distribution of Results. Information covering the results of evaluations or tests will be disseminated in accordance with DoD Instruction 5230.24 and DoD Directive 5230.25, *Withholding of Unclassified Technical Data from Public Disclosure.* Release of test documentation not held in DTIC must be approved by HQ AMC/ TE.

A4.9. Disclosures. The terms of this agreement shall apply to all submitted articles and disclosures. The provision of any contract for procurement resulting from these disclosures will supersede this understanding.

Table A4.1. CERTIFICATION BY SUBMITTER.

I certify that I have read the terms and conditions the Air Mobility Command set forth above, and understand and agree to them. I further certify that I am (check appropriate statement): a._____the sole owner of all articles, disclosures, and inventions submitted for evaluation or testing. b._____a member of the partnership or association identified below and have full authority to bind said partnership or association. c._____an authorized representative of the corporation identified below and have full authority to bind said corporation. NAME OF ITEM(s): SUBMITTED BY (Include typed name and title; name of partnership, association, or corporation, if applicable; and address): (Signature) (Date) RECEIVED BY (Include typed name, grade, title, and AMC organization identification): (Signature) (Date)

Attachment 5

HQ AMC/TE POINTS OF CONTACT

A5.1. Address:

A5.1.1. HQ AMC/TE

A5.1.2. 203 West Losey Drive

A5.1.3. Bldg 1700, Room 3620

A5.1.4. Scott AFB IL 62225

A5.2. Phone Number: DSN 779-3156, Commercial (618) 229-XXXX

A5.3. E-Mail Addresses:

A5.3.1. Director: **amc.te@us.af.mil**

A5.3.2. Chief, Mobility Test Management Division: **amc.tea@us.af.mil**

A5.3.3. Chief, Policy and Resources Division: **amc.tep@us.af.mil**

A5.4. Normal Duty Hours: 0730-1630 CST (Zulu minus 5 hours during daylight savings time)

A5.5. Web Address: AF Portal: **https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=s6925EC1353540FB5E044080020E329A9&command=org**

A5.6. SIPRNET Address: **test.evaluation@mail.smil.mil**