

BY ORDER OF THE COMMANDER

**AIR FORCE OPERATIONAL TEST
EVALUATION CENTER INSTRUCTION 99-103**

20 MAY 2004

Test and Evaluation

**CONDUCT OF OPERATIONAL TEST AND
EVALUATION**



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<http://www.e-publishing.af.mil>

OPR: AFOTEC/XPY (Lt Col Grill)
Supersedes AFOTECI 99-103C2, 18 Aug 2002

Certified by: AFOTEC/CC (Maj Gen Dupré)
Pages: 40
Distribution: F

This instruction provides the AFOTEC Commander's minimum mandatory policies and procedures for planning, executing, and reporting operational test and evaluation and related activities. This document is supplemented by AFOTEC Pamphlet (AFOTEC/PAM) 99-103, *AFOTEC Operational Test and Evaluation (OT&E) Guide*, which provides details on requirements defined in this instruction, as well as other tips and techniques for successful completion of operational tests. This document is to be used in conjunction with those policies, directives, and instructions contained in Department of Defense (DoD) Directive 5000.1, *The Defense Acquisition System*, DoD Instruction 5000.2, *Operation of the Defense Acquisition System* (and National Security Space Acquisition Policy Number 03-01, where applicable), Air Force Policy Directive (AFPD) 99-1, *Test and Evaluation Process*, Air Force Instruction (AFI) 99-103, *Test and Evaluation*, and Air Force Mission Directive 14 (AFMD-14), *Air Force Operational Test and Evaluation Center (AFOTEC)*.

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Submit requests for waiver to this instruction or any higher headquarters guidance to AFOTEC/XP via the AFOTEC/XP Corporate Account. XP will administratively coordinate the waiver request with the process owner and the affected AFOTEC staff.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This instruction supersedes AFOTECI 99-103 C2, 18 August 2002. It changes nomenclature consistent with new Air Force-level instructions and processes. Necessary Condition Chart development was added as a necessary step in the scope/cost subprocess. Substantially modified information pertaining to both Operational Test Program Management and Environmental Safety and Health. The Air Force Frequency Management Agency has been added as a point of contact for environmental electromagnetic effects-spectrum management issues. Deleted the option of not requiring a written operational assessment plan. The scope of technical reviews has been modified, as well as its placement. The Vice Commander

will now receive all briefings concurrent with those going to the Commander. The table depicting functional areas of expertise has been exported to the pamphlet. Procedures for pausing operational tests have been modified, to include headquarters AFOTEC in the coordination/decision process. Procedures for closeout have been substantially modified.

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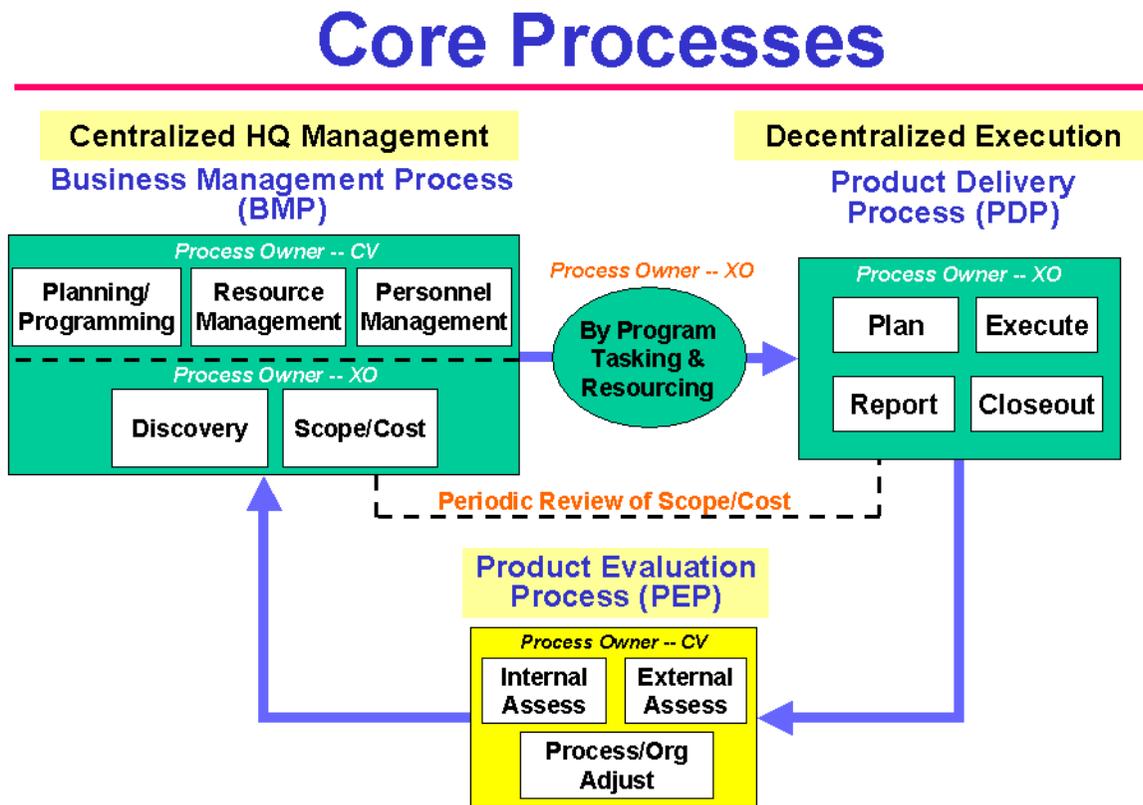
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Chapter 1
OVERVIEW

1.1. Terms of Reference. To effectively implement this guidance, a common understanding of terms is essential. For the purposes of this instruction, the term OT&E (operational test and evaluation) refers to initial OT&E (IOT&E), qualification OT&E (QOT&E), and/or follow-on OT&E (FOT&E). AFOTEC also participates in multiservice OT&E (MOT&E), which is an IOT&E, QOT&E, or FOT&E that AFOTEC accomplishes with one or more other services, and where AFOTEC may or may not be the lead operational test agency (OTA). The term operational test (OT) activities refers to all OT&E as well as operational assessment (OA), early operational assessment (EOA), operational utility evaluation (OUE), and test support for advanced concept technology demonstrations (ACTD), advanced technology demonstrations (ATD), battlelab initiatives (BI), and other nontraditional assessment (NTA) programs. Due to the client-funded nature of NTA programs, some aspects of this instruction will not strictly apply. Sound judgment shall be exercised in satisfying client NTA requirements. The terms “Detachment” (“Det”) and “Detachment Commander” (“Detco”) include the Special Test (ST) Directorate/Director and Joint Strike Fighter Test Team/Director except where specifically noted.

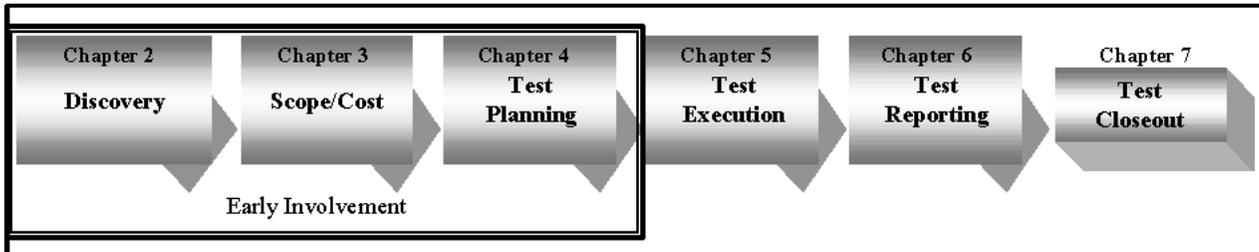
1.2. Introduction. This chapter serves as an overview to AFOTEC’s internal organizational responsibilities and outlines AFOTEC’s three core processes: Business Management, Product Delivery, and Product Evaluation. Each process owner defines their process and ensures correct procedures are followed.

Figure 1.1. AFOTEC Core Processes



This instruction outlines mandatory procedures for those Business and Product Delivery Processes that pertain to all OT programs, and also contain Product Evaluation Process (PEP) procedures. A working knowledge of the AFOTEC organization is assumed, and additional information on the roles and responsibilities of AFOTEC offices are described in AFOTECI 38-101, *Mission and Organizational Structures*. The next six chapters discuss the directives and procedures followed and products provided during every OT program (exceptions for NTA procedures are noted). The subprocesses covered by this instruction and their corresponding chapters are depicted in [Figure 1.2](#).

Figure 1.2. AFOTEC OT Involvement Process



1.2.1. Theory of Constraints (TOC). The Theory of Constraints methodology is the structured and disciplined approach applied to business management, product delivery, and product evaluation at AFOTEC. The theory recognizes that the most constrained (limited) resource will set the pace or schedule for a test program or functional process. The constrained resource for AFOTEC may be personnel, a special skill, range availability, etc. TOC provides leadership tools that support decision-making and include test program or functional process networks, strategic planning, and logical analysis.

1.2.2. Policy. The AFOTEC Commander sets broad policy guidelines and is the approval authority for all changes in policy. XP articulates and disseminates this policy. XP ensures AFOTEC-wide policy development is accomplished via the Policy Review Board (PRB). XP will provide clarification and assist with policy interpretation as required.

1.2.3. Commander's Action Group (CAG). The CAG provides a quality check and oversees the coordination of all documents that will eventually require CV or CC approval/signature. The CAG maintains and manages the AFOTEC Electronic Coordination System (AECS). Requirements for submitting test plans and final reports are contained in their respective chapters.

1.2.3.1. Documents Requiring Command Section Approval/Signature. All documents going to the Command Section shall be entered into AECS for coordination (exceptions may include award citations and officer/enlisted performance reports). Contact the CAG if you feel electronic coordination of your package is not warranted.

1.2.3.2. Complete Staffing. Complete two-letter coordination is the responsibility of the Detco or Director. Action officers must ensure "complete staffing" is accomplished for all taskers. A "no reply" does not constitute consent. Action officers are responsible for following up with non-responding offices of collateral responsibility (OCRs) to complete the staffing process.

1.3. Business Management Process (BMP). The BMP involves five corporately managed activities or subprocesses: planning/programming, resource management, personnel management, discovery, and scope/cost. The CV is the Center's overall business manager and is the process owner for the first three subprocesses. XO is the process owner for the discovery and scope/cost subprocesses.

1.3.1. **Planning/Programming, Resource Management, Personnel Management.** The following Business Management subprocesses: planning/programming, resource management, and personnel management, apply primarily to AFOTEC's involvement in all programs as a whole. Therefore, these subprocesses apply only to those offices that execute them, and therefore are not discussed further in this instruction. The primary subprocess manager for planning/programming is XP, RM manages resource management, and DP is responsible for personnel management.

1.3.2. **Discovery.** Discovery consists of: understanding global, theater, and continental United States (CONUS) operations; program discovery/identification; program review; initial Test Resource Plan (TRP) development, the involvement decision; Involvement Order development; and Involvement Order coordination/approval. AS executes this subprocess for traditional programs (ST executes this subprocess internally for Special Access Programs (SAPs)), and the Det is the Single Face to the Customer for outside organizations post-Involvement Order. XO and the owning Det execute this subprocess for NTA programs. Discovery is detailed in [Chapter 2](#).

1.3.3. **Scope/Cost.** Although XO owns this subprocess, AS executes it day-to-day (ST manages scope/cost internally), and the Det participates as Single Face to the Customer for outside organizations. Scope/cost consists of: understanding the system; developing the necessary condition chart (NCC) and evaluation framework (EF); developing and briefing the Initial Test Design (ITD), ITD approval; TRP refinement, Tasking Order development; and Tasking Order coordination/approval. Scope/cost is detailed in [Chapter 3](#).

1.3.4. **Operational Test Program Management (OTPM) in BMP.** OTPM is the standardized application of project management fundamentals and Theory of Constraint project management to BMP and test program management. OTPM provides a disciplined approach to planning (to include resource planning), execution, and control to support the effective and efficient accomplishment of test programs. OTPM networks define the tasks, task relationships, resources, and time required for each test phase. See paragraph [3.4](#).

1.4. Product Delivery Process (PDP). XO, as the PDP owner, ensures a standardized process is followed. PDP consists of planning, executing, reporting, and closeout ([Chapter 4-Chapter 7](#)). The Det executes product delivery as the subprocess manager as directed in the Tasking Order and this instruction.

1.4.1. **Test Planning.** Test planning consists of: technical review, test concept development, test concept briefing, test plan development; test plan coordination/approval, updating the test plan, data management analysis plan (DMAP), detailed test procedures (DTP) and TRP refinement, preparing the test readiness review (TRR) briefing; and conducting the TRR. Test planning is detailed in [Chapter 4](#).

1.4.2. **Test Execution.** Test execution consists of completion of all test events, collection of all test data, and completion of test data analysis. Test execution is detailed in [Chapter 5](#).

1.4.3. **Test Reporting.** Test reporting consists of report writing, coordination/approval, briefing; report signing; publishing, and distribution (with Interim Summary Reporting, if required). Test reporting is detailed in [Chapter 6](#).

1.4.4. **Test Closeout.** Test closeout consists of closeout order development, coordination/approval, and completion of the closeout letter/memorandum. Test closeout is detailed in [Chapter 7](#).

1.4.5. **OTPM in PDP.** The OTPM test program network reflects the tasks, task relationships and resources required to move a program from planning to execution to reporting and closeout. See paragraph [4.6.3](#).

1.5. Product Evaluation Process (PEP). The PEP process owner is CV, and day-to-day management is accomplished by XP. Contained within PEP are links to access the PRB webpage, the lessons learned program, the product/process improvement program, and the strategic planning webpage. These activities all work toward continually improving AFOTEC products and processes. Dets and Directorates will submit PEP inputs as necessary through the "Product Evaluation" site under the Plans and Policy tab on the MIN. XP will track inputs and provide continual feedback to the submitter until the input is resolved.

1.6. Operational Test Agency (OTA). The OTA is the organization designated to conduct Title 10 operational test and evaluation. AFOTEC is charged to function as the Air Force OTA. The core team/test team, with concurrence from AFOTEC leadership, will ensure fulfillment of the OTA responsibilities identified in AFI 99-103.

1.7. Office of Secretary of Defense (OSD) T&E Oversight List. AFOTEC is the OTA for all Air Force programs on the OSD T&E oversight list (see <http://www.dote.osd.mil/oversight/index.html>). Each AFOTEC program manager (PM)/test director (TD) is responsible for knowing the oversight list status of his/her program and ensuring the current status is stated on the MIN.

1.8. Director, Operational Test and Evaluation (DOT&E) Special Interest Items. For programs on the DOT&E oversight list, the Det will ensure DOT&E special interest items are addressed in the AFOTEC plan and report. DOT&E policy letters on special interest items (e.g., information assurance, environmental electromagnetic effects-spectrum management, and interoperability) are available on the MIN ◇ Plans and Policy ◇ Policy ◇ HHQ Policy and Memoranda. AS will appoint points-of-contact (POCs) for each of these areas, and the AS Technical Advisor will provide contact information. The core/test team will develop working relationships with the Joint Interoperability Test Command (JITC), the Air Force Information Warfare Center (AFIWC), the Air Force Frequency Management Agency (AFFMA) and DOT&E, as appropriate, to effectively resolve evaluation concerns with these items. Where a Memorandum of Agreement (MOA)/Memorandum of Understanding (MOU) is needed, coordinate memorandum development with XPY.

1.9. MAJCOM Force Development Evaluation (FDE) of Oversight Programs. There may be an instance where a program is placed on the OSD oversight list after an AFOTEC determination of non-involvement (where a MAJCOM has elected to accomplish an FDE). In this instance, AS will review each MAJCOM oversight FDE program (determine the extent of AFOTEC involvement) and make an involvement recommendation to XO. Funding for AFOTEC involvement in these programs will be determined in the same manner as other unplanned, "pop-up" programs, as an unfunded requirement presented to the Requirements Review Board (RRB), and to the Financial Management Board (FMB).

1.10. Evolutionary Acquisition (EA). Per DoD Instruction 5000.2, evolutionary acquisition strategies are the preferred approach to satisfy operational needs. The Det and AS will ensure OT representation on EA incremental/spiral development Integrated Test Teams (ITT) and active participation in combined test force (CTF) and developmental test (DT) activities in order to incorporate OT objectives. These objectives will measure system capabilities, and detect and identify deficiencies, concept of operations (CONOPS) issues, and mission impacts. The Det will ensure timely feedback to the program office and others as required. This feedback can be included as part of the CTF report or as separate OT input (i.e., a message approved by the Detco or more formal report). The Det will ensure adequate risk assessments are accomplished for each spiral, increment and/or evolutionary block, and make testing recommendations to

XO. For software-intensive systems using an evolutionary acquisition strategy, the Tasking Order will include a provision to conduct risk assessments (i.e., *DOT&E Guidelines for OT&E of Software Intensive System Increments*, located on the MIN under the Plans and Policy Tab) for future spirals, increments or blocks. See AFI 63-123, *Evolutionary Acquisition for C2 Systems*, for further information on evolutionary acquisition.

1.11. Seamless Verification. This concept is a key tenet of USAF agile or capabilities-based acquisition (along with Technology Transition and Collaborative Requirements) to procure and field warfighting capabilities faster. While these tenets are still being further defined, Seamless Verification involves many of the processes AFOTEC practices today; such as early program involvement, collaborative development of test strategy with the developer and user, robust integrated DT/OT, demonstration of stabilized performance in an operational environment during DT, and "no secrets" data sharing. These practices allow for a "seamless" transition from contractor testing, to developer testing, to integrated DT/OT via a combined test force approach, to OT&E. Seamless Verification supports Evolutionary Acquisition by "characterizing" or "verifying" system capabilities throughout the acquisition timeline, and will allow decision makers the option of fielding less than full operational capability.

1.12. Commercial-of the Shelf (COTS), Nondevelopmental Items (NDI) and/or Government Furnished Equipment (GFE). The Det and AS will ensure sufficient test planning, execution and reporting are conducted for these items, focusing on their military/warfighter applications. The processes described in this instruction will apply unless the Det and XO agree upon differences. XO will coordinate with XP for policy/procedural implications.

1.13. Extended-Period, Small-Production Programs. The Det and AS will ensure monitoring and/or participation in all relevant testing for programs that have extended, long development/construction phases and/or involve small procurement quantities (e.g., military satellite programs). The processes described in this instruction will apply unless the Det and XO agree upon differences. XO will coordinate with XP for policy/procedural implications.

1.14. SAPs. STZ functions as AFOTEC's single focal point for all SAPs, and is the secretariat for the Special Test Assessment Group (STAG). It is mandatory that any program contacts or issues that pertain to SAPs are brought to the attention of STZ. The STAG maintains cognizance and control of all SAP-associated activities. The CC chairs the STAG and provides direction for all ST programs. All normal AFOTEC processes (within security constraints) will be performed within STZ for all ST programs. Coordination and staffing of Special Access Required (SAR) documents and briefings within AFOTEC will occur via STZ and individual STAG members as required. The STAG charter is updated annually and contains additional information on discovery, scope/cost, and PDP for ST programs.

1.15. Briefings to the AFOTEC Commander. When briefing the CC on test plans, test readiness reviews, and final reports, etc., ensure that CV, CA, CN, XO, XP, AS, SE and TS are invitees. Schedule the meeting with enough lead-time so invitees (or their representatives) may deconflict their schedules to attend the briefings. Provide read-ahead copies of briefing slides to invitees as soon as possible (no later than 3 working days) prior to the briefing. Before briefing the Commander, briefers should pre-brief XO and CA to obtain approval to proceed (CV will take the briefing concurrently with the CC). The CC approves all briefings related to oversight programs prior to being given outside of AFOTEC.

1.16. Program Support by AFOTEC Dets/Operating Locations (OL). Dets/OLs can greatly benefit AFOTEC by engaging with System Program Offices (SPOs), product and logistics centers, MAJCOMs, and other key agencies early in the requirements, alternatives, and acquisition processes. Time permitting, the Dets/OLs should support early program support activities by discovering emerging requirements and new acquisition programs, and by obtaining key program documentation. By providing program support engagement, Dets/OLs will ensure AFOTEC's planning considerations are addressed, will educate external offices about the benefits of AFOTEC's involvement, and will enhance the other organizations' communications with AFOTEC. Information gained by Dets/OLs will be shared with AS to initiate discovery activities and/or support scope/cost activities, as appropriate.

1.16.1. Establish a Working Relationship with SPOs. Dets/OLs collocated at Air Force Materiel Command (AFMC) and Air Force Space Command (AFSPC) product and logistics centers are encouraged to establish a working relationship with the centers' SPOs. Each Det/OL should be prepared to actively participate in the Product Center's acquisition planning process and test strategy formulation as directed via an Involvement/Tasking Order or by XO. The Dets/OLs will actively look for the following: information to support AS Involvement/Tasking Order preparation, new program basics (such as program name description and acquisition strategies), responsible test organization (RTO), and other POCs, related program documentation (primarily milestone A test and evaluation strategies/Test and Evaluation Master Plans (TEMP), etc.), program reviews and forecasts, and other information that may be helpful to early involvement efforts.

1.16.2. Obtain Program Information. Dets/OLs collocated at MAJCOMs and similar key agencies will obtain program information such as program priorities, operational capabilities documents (either the Initial Capabilities Document (ICD), Capability Development Document (CDD) or the Capability Production Document (CPD), depending on the program's place in the acquisition process); CONOPS, operating plans, and tactics, techniques, and procedures (TTP) as requested by AS. Whenever possible, the Dets/OLs should attend meetings that are in their geographical areas. Any information obtained should be sent to the AS corporate email account. Dets/OLs are also encouraged to make telephone contact with the Division Chiefs for ASA (Aircraft and Combat Support Division), ASC (C4ISR, Space and Missiles Division), ASE (Battlespace Employment Division) and/or the AS Technical Advisor for Program Management (ASN). Likewise, AS will inform the Dets/OLs of any additional information requirements, programmatic concerns, and status of OT&E early planning efforts.

1.17. Templates and Guides. The ITD, OT plan/report (and briefing), technical review, test concept, and test readiness review templates/guides are provided on the MIN. Deviations to the templates/guides must be approved by the XO. Template format is mandatory, and all contents contained in both the templates and briefing guides must be considered for inclusion. Additional guidance on preparing these items is provided in the respective sections of AFOTEC PAM 99-103.

1.18. Early Involvement. AFOTEC engages in early and continuous involvement, teaming with acquisition and user communities to reduce program risk and deliver mission capable systems to the warfighter sooner at reasonable cost. Early involvement covers the period from pre-acquisition up to dedicated OT&E and includes the following activities:

1.18.1. Participating in ACTDs and other pre-acquisition activities.

1.18.2. Supporting Analysis of Alternative (AoA) studies, Analysis of Material Solutions, and operational capabilities development.

- 1.18.3. Supporting Course of Action (COA) development.
- 1.18.4. Assisting in shaping the acquisition and Test and Evaluation strategies.
- 1.18.5. Influencing system design/development by providing operational assessment feedback.
- 1.18.6. Maximizing participation in integrated test and evaluation activities, ensuring systems will be ready for OT&E.
- 1.18.7. Exploiting opportunities to find problems/risks and recommend improvements.
- 1.18.8. Identifying potential system operational impacts on battlespace environment and potential battlespace environment impacts on the system.
- 1.18.9. Ensuring OT&E documentation is prepared/approved in a timely manner.
- 1.18.10. Identifying test capabilities requirements and minimize test resources.

1.19. Anatomy of a Program. Located on the MIN Policy page, the *Anatomy of a Program* is a graphical representation of the OT&E process. Core/test team members are encouraged to refer to this anatomy to visualize and better understand the requirements associated with each phase of a program. The anatomy is purposely constructed for a complex OT&E; therefore not all anatomy steps are required for every program. Core/test team members will consider each step of the process for applicability, but will only accomplish the steps necessary to fully complete the OT&E.

1.20. Product Grandfathering. Several products (i.e., test plans, briefings, reports) have corresponding mandatory templates, which can be found on the MIN homepage. These templates are periodically updated as processes continue to be redefined. The OPR for the product has the responsibility to ensure (within reason) their product adheres to the most current template. If a new template is issued during the middle of writing, to prevent extensive rework, the product OPR will seek approval from XO to have the product grandfathered. Once approved, the OPR will state such during the coordination process.

1.21. Management Information Network (MIN) Structure. For each program on the MIN, the test team is required to post program information in the test management area under the “documentation” tab. By keeping this area continually updated, an accurate documentation trail is available. The documentation area of a test program is broken down into several categories: Schedules, Test Orders, Agreements/Charters, Briefings, Test Plans, Test Reports, Program/Requirements Documents, Certification Documents, Meeting Minutes, Safety, Modeling and Simulation (M&S), Studies/Analysis, Multimedia/Graphics, and Miscellaneous. See AFOTEC PAM 99-103 for further details.

1.22. AFOTEC Contractor Considerations. Dets and Directorates may identify technical needs required to perform specific tasks. They should become aware of any test support shortfalls that may exist within the test team as the TRP is being developed. Contractor personnel are part of the core/test team, but the PM, TD or the test team cannot directly task them beyond the scope of the delivery order. There are restrictions on releasing intelligence information to government contractors. AFOTECI 14-303, *Release of Intelligence Material to US Contractors*, governs such releases, and TSI manages AFOTEC’s intelligence release program. The purpose of these restrictions is to prevent the intelligence from giving proprietary advantage to the contractor as well as to prevent inadvertent compromise of the information. The DD Form 254, *DoD Contract Security Classification Specification*, on each contract specifies whether the release of intelligence is authorized for that contract. The Det contracting officer technical representative

(COTR) requests intelligence release on behalf of the contractor. TSI will work with the Det or Directorate to ensure that all intelligence data necessary for the contractor to complete his/her obligations is released.

1.23. Operational Risk Management (ORM). Dets and Directorates must employ methods to effectively manage risk in all facets of the test process. ORM has been developed to systematically evaluate possible courses of action, identify risks and benefits, and determine the best course of action for any given situation. SE, as a member of the core/test team, will provide guidance, advice and direction on the implementation of ORM as described in AFI 90-902, *Operational Risk Management*.

Chapter 2

DISCOVERY

2.1. Introduction. XO is the owner of the discovery subprocess. AS executes this subprocess for traditional programs (ST executes this subprocess internally for SAPs). XO and the owning Det execute this subprocess for NTA programs. For NTA process information, see paragraph 3.9. Scope/cost is addressed in [Chapter 3](#).

2.2. Discovery Defined. Discovery consists of: understanding global, theater, and CONUS operations; program identification; program review; the involvement decision; Involvement Order development; Involvement Order coordination/approval; and other discovery activities. The purposes of discovery include: (1) gaining an understanding of the system's intended role in the battlespace environment; (2) injecting operational realism into early planning; (3) investigating the potential for and scope of integrated developmental/operational testing; (4) providing early operational insight and feedback to the acquisition community; and (5) providing insight into programmatic concerns. The discovery subprocess also consists of understanding operations that may include involvement in exercises and experiments as appropriate.

2.3. Understand Global, Theater, and CONUS Operations. This is a continuous AS activity where relationships are maintained with the combatant commanders, Joint Staffs and MAJCOMs in order to develop a clear understanding of all types of operations. Consequently, AS personnel are tasked to be AFOTEC's experts on battlespace operations.

2.4. Program Identification.

2.4.1. A program formally enters program identification upon XO approval. Following XO approval, XOO will add the program to the MIN. During program identification, AS will continue to investigate the program and make recommendations regarding further AFOTEC involvement. In addition, AS will:

2.4.1.1. Become involved in the MAJCOM modernization planning process to include mission area plans (MAP), mission area assessments (MAA), mission needs analyses, mission solution analyses, and ICD development.

2.4.1.2. Develop expertise in theater and task force operations.

2.4.1.3. Research background information about exercises, wargames, and experiments.

2.4.1.4. Identify, track, and assess NTA activities, and evaluate their potential to transfer into the traditional acquisition process.

2.4.2. The objective in program identification is not to create a list of programs, but to understand what the MAJCOMs and Unified/Joint commands are planning. Program identification also provides opportunities to interact with the SPO, users, and others, enabling the AS PM to identify AFOTEC test requirements as early as possible. The advantage is that AFOTEC will have earlier information on combatant commanders and MAJCOMs requirements for purposes of making involvement decisions and NCC and EF development (see [Chapter 3](#)). Tracking will likely require temporary duty (TDY), and AS will budget for this activity. The Det should request TDY funding from AS (ST funds their own TDY). In this phase, AS will assign a PM to be POC for each program. The AS PM will keep the

program information updated for the remainder of discovery. Information related to DOT&E special interest items will be highlighted on the program's Issues Tab on the MIN (consult with applicable AS POC, as needed). The MIN then becomes the key source for senior decision maker program reviews. AFOTEC members will contact AS when they discover a program with potential for AFOTEC involvement that is not on the MIN. Discovery will conclude if the program is terminated.

2.5. Initial TRP. The AS test resource manager (TRM) will initiate the TRP, with the assistance of the AS PM. The initial TRP is a rough order of magnitude estimate useful for AFOTEC budgeting purposes in the near term. The TRP will evolve to include details on AFOTEC contractor support, range time, flying hours, etc. The AS TRM will coordinate the initial TRP with the potential gaining Det. Once initiated, the TRP will be reviewed every six months and updated as required to include reasons for change. ST will maintain any SAP TRP within program channels. Due to their client-funded nature, a TRP is not required for NTA programs.

2.6. Program Review. AS conducts periodic program reviews. The intent of the program review is to ensure leadership insight into programmatic activities and is open to all AFOTEC organizations.

2.7. Involvement Decision. When sufficient information is gathered through discovery that the AS PM feels the program has matured to the point that it is a pending acquisition, they will schedule and present an involvement decision briefing. The involvement decision can lead to three results: (1) keep in program identification; (2) document non-involvement via a non-involvement letter; or (3) publish an Involvement Order establishing a core team for the scope/cost phase. AS will make involvement recommendations and XO is the approval authority. Involvement decisions are documented in an Involvement Order and recorded in the MIN. Once the involvement decision is reached, the AS PM and the Det TD will work together to update and revise the TRP. For non-involvement decisions, AS will coordinate with XO for the program's removal from discovery, and archive program information locally within AS. All documentation will be maintained by AS. STZ will make involvement recommendations through the STAG for new SAPs. For NTA involvement decisions, see paragraph [3.9](#).

2.7.1. Involvement Order. The Involvement Order formally documents AFOTEC involvement in a program and enters the program into the scope/cost subprocess. At a minimum, the following items are documented in the Involvement Order: 1) program description, 2) identification of core team members and responsibilities (required core team members include AS, XO, TS, XP, SC, SE, OL-NN (if needed), the Det and others as required. Although AFOTEC cannot officially task them, developer and user representatives are also considered essential to the core team and are highly encouraged to participate), 3) scope/cost subprocess activities (identifying timelines, tasks, or products), and 4) a cost estimate to support those activities (or an initial TRP). The Involvement Order will establish the Det as the "Single Face to the Customer" to all external organizations, while AS maintains responsibility for executing the scope/cost subprocess, will schedule core team activities as requested by the Det, act as process lead for those meetings, and ensure scope/cost is completed in a timely manner. As Single Face to the Customer, the Det becomes the spokesperson for AFOTEC, and will interface with the developer and user for the duration of the test program. XO will provide a copy of all Involvement Orders to HO.

2.7.2. Non-Involvement Letter. If the involvement decision results in a determination that AFOTEC involvement is not appropriate or warranted, then a non-involvement letter to AF/TEP is prepared by

AS, coordinated with the user/SPO, staffed through AECS (Det, XP, XO, Det 1, then Command Staff) for XO signature. The non involvement letter will state:

2.7.2.1. Justification for AFOTEC non-involvement [state reason];

2.7.2.2. AFOTEC will not be involved with the [name of system];

2.7.2.3. A recommendation for MAJCOM [name of MAJCOM] testing;

2.7.2.4. The restated position of the user and SPO, identifying offices/individuals and phone numbers.

2.8. Other Discovery Activities. Pre-Involvement Order, AS will be responsible for supporting discovery activities as these activities occur early in the acquisition process and typically feed into the involvement decision. These activities include but are not limited to participation in program requirements and acquisition reviews, acquisition strategy panels, high performance or integrated product teams, and document reviews such as capabilities documents, AoA, CONOPS, etc. When conducting these reviews all inputs should remain consistent with the AFOTEC Commander's direction to address operational employment level requirements in addition to the traditional system performance based specifications. Often, these reviews will lead to the realization that a program needs to be entered into the AFOTEC discovery process. The AS PM will ensure all program documentation is completed (MIN entries/maintenance (also see paragraph 4.3.3.), test program case files, initial TRPs, etc). Post-Involvement Order, the AS PM will continue these administrative responsibilities as part of managing the scope/cost subprocess, while the Det, under the Single Face to the Customer concept, will increase their active participation as described in **Chapter 3**. AS will transfer the program to the detachments as soon as practical through the Tasking Order.

2.9. Expedited Approval Process for Client-Funded OT. The expedited approval process applies specifically to client-funded OT activities (traditional OT&E and NTA). The Det may request the expedited approval process for Involvement and Tasking Orders when the normal coordination and approval timelines would not meet the needs of the test schedule. Refer to AFOTEC PAM 99-103 for recommended procedures for this process.

Chapter 3

SCOPE/COST

3.1. Introduction. XO is the owner of the scope/cost subprocess. AS executes this subprocess for traditional programs (ST executes this subprocess internally for SAPs), with the Det acting as Single Face to the Customer. XO and the owning Det execute this subprocess for NTA programs. For NTA process information, see paragraph 3.9.

3.2. Scope/Cost Defined. Scope/cost consists of: understanding the system; developing the NCC and EF; developing and briefing the ITD; Tasking Order development; coordination and approval. The purposes of the scope/cost subprocess are: (1) to ensure a standardized process is applied to all OT programs; (2) to corporately allocate AFOTEC resources; (3) to identify major test capability requirements and shortfalls; and (4) to task a program to a Det. Scope/cost begins with the issuance of an Involvement Order (which establishes a core team that will take the program through the process), includes a CV-approved Tasking Order, and continues, as required, to accommodate resource and scope changes throughout the course of the program. While the Det has program control and acts as the Single Face to the Customer, AS maintains responsibility for managing the scope/cost subprocess, will schedule core team activities as requested by the Det, act as process lead for those meetings, and ensure scope/cost is completed in a timely manner. XO will ensure standardization of the process across all OT programs. OTPM networks are the key tools XO will use to ensure project plans are standardized. AS is responsible for drafting, coordinating, and attaining final approval of the Tasking Order, which is the output of the scope/cost subprocess. When more than one Det is identified as the potential OT&E lead, XO (with core team input) will determine the lead organization. Post-Tasking Order, the Det will lead program scope and cost review efforts with assistance from AS (see paragraph 3.8.1.). If a conflict exists between the Tasking Order and AFOTEC instructions/policy, the Tasking Order will take precedence. The Tasking Order will state the conflict and the rationale for deviation.

3.3. Understanding the System. The AS PM, with assistance from the core team, will research and collect system information from various sources to include capabilities documentation, CONOPS, SPO documentation/discussions, etc. The goal is to understand where the system fits into battlespace operations and the system's operational capabilities and limitations. The operational significance of the capabilities document's parameters needs to be sufficiently understood in order to properly scope the overall evaluation. Once the AS PM and/or the subject matter expert for the new system are satisfied they have a good understanding of the system, the information will be presented at the initial core team meeting. The core team needs to know as much information as possible to begin to determine how this new or modified capability will fit into the battlespace to support meaningful EF development. Understanding of the scope and costs will be reflected in the tasks and resources listed in the initial OTPM network developed during this process.

3.4. OTPM in Scope/Cost. OTPM will provide the basis for managing the scope/cost process. The AS PM will develop and maintain the scope/cost project network to manage activities up to the issuance of the Tasking Order. Also during scope/cost, the Det TD, with core team support, will develop an initial OTPM network for the post-Tasking Order activities (test planning, execution, and reporting). This "planning" network will be developed prior to the ITD briefing and will be refined as additional information

comes available. It will serve as the basis for the detailed networks developed by the Det to manage activities during the PDP (see paragraph 4.6.3.).

3.5. Developing the NCC and EF. ASE is responsible for developing the NCC and EF with support from the core team and other subject matter experts as necessary. Development of the NCC and EF begins following Involvement Order approval and places the program in scope/cost. The NCC is a pictorial representation of the battlespace, identifying critical nodes to mission accomplishment using Theory of Constraints methodology. The EF is a working document that captures the core team's rationale for test design. As such, it captures the battlespace (NCC) the system is intended to operate in and the requirements to be tested, each linked to a specific Critical Operational Issues (COI) for traceability. In addition, it contains the Operational Impact Assessment (OIA) issues and test design products generated during the ITD core team. Following the ITD core team meeting, the EF will be provided to the Det to capture further test design information (e.g. test scenarios, methodologies, resources, contractor support, etc.). Where applicable, the core team will ensure requirements and capabilities associated with DOT&E and other special interest items are addressed in the EF. The Office of Aerospace Studies (OAS), AFIWC and JITC should be invited to the development of the EF, as applicable. The EF provides the foundation for development of the ITD, is attached to the Tasking Order, supports development of the test concept, and can be used to populate the test plan template. ASE will verify the currency and format of the EF prior to it being attached to the Tasking Order.

3.6. ITD. ITD is a process executed by the core team that develops test methodologies for the system under test to identify resources and develop a technically credible design. The ITD process concentrates efforts to identify both high cost drivers and long-lead items necessary for the OT. The process lead for core team meetings will be AS. Key core team members are XOO (ensuring oversight of ITD as a representative of the overall scope/cost owner), AS PM and ASE (as developers of the EF, and expertise in exercise involvement and special interest items), TS (expertise in ITD, system evaluation, test capabilities, intelligence, human factors, and weather) and the Det (program/system expertise). Additional core team membership from SC (communications), XP (policy and procedures), and SE (Environmental Safety and Health (ES&H) review and expertise) will be invited to all ITD core team meetings and will participate as needed. CA and CN, while not core team members, will provide technical guidance as necessary/required. ITD development will culminate with the ITD briefing (given by the Det TD and approved by the XO and CA), which will demonstrate a design that is both a technically credible and a defensible basis of estimate (see AFOTEC PAM 99-103, [Chapter 3](#), for definitions). The AFOTEC test process will focus on evaluating overall system performance. This focus applies through all phases of the test process to include the pre-TRR and post-TRR test phases. In cases where AFOTEC is not the MOT&E lead, the ITD process will be presented to the lead OTA for consideration early in the scope/cost process, when initially scoping involvement. Should the lead OTA decline to use the ITD process, the AFOTEC core team will ensure AFOTEC leadership understands the lead OTA's test design process prior to proceeding with scope/cost and ITD development. Dets will use the ITD briefing guide, located under "Templates" under the "Plans and Policy" tab on the MIN.

3.7. Update TRP. The TRP identifies resources required to support testing, acts as a repository to document the rationale for change, and helps formulate the basis for AFOTEC's budget submissions, manpower requirements and procurement lead times. If supporting AFOTEC activities, external agencies such as AFIWC and JITC, who typically support test and evaluation of DOT&E special interest items, will be included in the TRP. Post-Involvement Order, the Det becomes responsible for review and update

of the TRP. Once complete, the TRP defines the resources that are used to accomplish tasks in the OTPM test program network. The Det TRM will staff the TRP to external agencies prior to AFOTEC approval of the Tasking Order.

3.8. Tasking Order. The Tasking Order is intended to provide broad Commander's guidance regarding the scope of the evaluation and resource bounds. Further, it defines responsibilities and identifies requirements for periodic reviews during the PDP. The Tasking Order, as approved by CV, is the product of the scope/cost subprocess. Preparation of the Tasking Order is the responsibility of AS (ST for SAPs), supported by the core team, coordinated through the Directorates identified in the Tasking Order, and will be submitted through XO and CA to CV for signature. The Tasking Order provides programmatic information, EF, tasking and responsibilities, and resource allocation. For applicable programs, the Tasking Order will identify specific responsibilities associated with PDP efforts for DOT&E and other special interest items. The EF, ITD briefing and minutes, TRP and initial OTPM network will be included, as a minimum, as annexes to the Tasking Order. The test and evaluation strategy/TEMP/Single Acquisition Management Plan (SAMP) inputs should also be included if available. If deviations from or revisions to the Tasking Order are required, the core team will submit a revised Tasking Order through XO to CV for approval. XO will coordinate with XP if deviations conflict with published policy or procedures.

3.8.1. Periodic Review of Program Scope/Cost. Periodic reviews by XO may occur at any time, as required. A briefing may be required if the Det recommends significant test program changes.

3.8.2. Additional OT Program Reviews. These reviews will be provided as follows: 1) as directed by XO, 2) as directed in the Tasking Order, and 3) any time a significant change in OT scope or cost increase (as agreed between the Detco and XO) is needed. Requests for Headquarters reviews will be processed through XO and staffed by the CAG. Any program changes resulting from these reviews will be reflected the OTPM network.

3.9. NTAs in the BMP. The Det proposing an NTA program drafts an Involvement Order and forwards it to XO for processing. Once XO approves the Involvement Order, the Det proceeds with the scope/cost activities and, working with the client, develops a Client Requirements Document (CRD) and a Tasking Order, which is then staffed through XO and CA to the CV for signature.

Chapter 4

OT PLANNING

4.1. Introduction. The OT planning phase of the product delivery process begins when the Tasking Order is published and ends with completion of the TRR. See *Anatomy of a Program* for an example of the process flow. The purpose of the OT planning phase is to complete detailed planning of OT activities in preparation for the TRR. Requests for deviations from the Tasking Order will be coordinated with, and approved by the XO. XO will coordinate with XP if the deviation is in conflict with published policy or procedures. The Tasking Order will outline documentation and review requirements for NTA.

4.2. OT Planning Defined. OT planning consists of: test concept development; test concept briefing; test plan development; test plan coordination/approval (and briefing, as necessary); updating the test plan, DTP, DMAP, and TRP update; preparing the TRR briefing; processing certification of readiness for dedicated OT&E, and conducting the TRR. The OTPM test program network will reflect the tasks required for OT planning. OT planning can also incorporate analysis and research of non-OT-derived information.

4.3. Program Documentation.

4.3.1. Capabilities Documentation. Post-Tasking Order, the Det will lead and ensure the test team participates in reviews of the AoA, ICD/CDD/CPD, CRD, CONOPS, System Threat Assessment Report (STAR), Integrated Logistics Support Plan (ILSP), and Information Support Plan (ISP) (if applicable), for systems requiring OT. Electronic copies of capabilities documents need to be loaded on the appropriate documentation page on the MIN. The Det will ensure that the test team is fully aware of the operating/using command's responsibilities as defined in AFI 10-601, *Capabilities Based Requirements*.

4.3.2. Acquisition Program Documentation. Before each milestone review, the Det will review and provide appropriate input to the Program Management Directive (PMD), test and evaluation strategy (for programs entering at Milestone A), TEMP, SAMP, Request for Proposal (RFP), and other documentation pertinent to the test program. Particular attention should be given to section H and L of the RFP, to ensure it contains any necessary special clauses for executing the OT&E plan. Review Section M (Evaluation Factors for Award) to ensure it contains evaluation criteria necessary to select a contractor to support the T&E requirement. If the T&E concept specifies an integrated DT/OT approach, provisions must be included for protecting the quality and integrity of system contractor test data for later use during dedicated OT&E. The OT&E portion of the test and evaluation strategy, or the initial TEMP part IV and part V can be developed by the core team. The Det is responsible for updating the TEMP (or the corresponding sections of the SAMP, as applicable). The TEMP shall focus on the overall structure, major elements, and objectives of the T&E program to support the acquisition strategy. If not previously accomplished, the Det will also ensure an assessment of the linkage between the TEMP and required capabilities. The CC approves all test and evaluation strategies/TEMPs/SAMPs, regardless of acquisition category (ACAT).

4.3.3. MIN Certification. The Det will ensure that the MIN reflects accurate program information. The Det will ensure that each program has a designated MIN information manager. The test team will certify they have reviewed (and updated as necessary) their test program information on the MIN, ensuring the "last certified" date is never more than 30 days old. Changes to a program long/short title require XO approval.

4.4. Technical Review. Programs may require post-Tasking Order technical review(s) by CA to ensure technical adequacy of the test concept and the evaluation. The test team should bring to the initial test design briefing the technical issues that require further investigation and detailing in a technical review. The technical review(s) will occur before the Test Concept Briefing (Integrated Test Concept) for test design related topics and before the test readiness review for data evaluation/reporting topics. The test team should suggest appropriate timeframes to have the technical review(s). The Test Director and the Det Technical Advisor supported by members of the test team will participate in the technical review to CA, XO and AS are invited to the technical review discussions and participate as needed. The technical review guide is contained on the MIN. Long duration programs may require multiple technical reviews.

4.5. Test Concept Development and Briefing. The test concept is used to obtain XO approval of the test approach necessary to evaluate the COIs and major Measures of Effectiveness (MOE) (e.g., those MOEs that rate a Key Performance Parameter) and assess the operational impact associated with employing the system. The test concept, which builds on the ITD, should identify OT activities as well as required top-level resources to execute the concept (i.e., test infrastructure, M&S requirements, funding, manpower, AFOTEC contractor support, etc.). The test concept will incorporate testing techniques and methodologies to accomplish these objectives and activities. The test concept will also address the test and evaluation approach to DOT&E and other special interest items. The CC/CV will approve test concept briefings that require subsequent DOT&E approval (e.g., oversight programs). When scheduling the test concept briefings, ensure that TS, AS, XP, SE, XO, CA, and CN are invited, and attempt to schedule the meeting with enough lead-time so invitees (or their representatives) may deconflict their schedules to attend the briefings. Provide read-ahead copies of briefing slides to the invitees, preferably three duty days before the scheduled briefing. The test concept briefing guide is contained on the MIN.

4.6. General OT Planning Considerations. While AFOTEC must show TEMP and test plan linkage to the capabilities document, AFOTEC is not restricted to only those capabilities for determining the scope of the evaluation. The Det is required to annotate the requirement for the SPO and the developmental testers to comply with the templates in Air Force Manual (AFMAN) 63-119, *Certification of System Readiness for Dedicated Operational Test and Evaluation*, in the TEMP part IV, and advocate for inclusion in parts II and III. Ensure DOT&E and other special interest items are properly addressed in the parts III, IV and V of the TEMP, if applicable. If a program does not have a TEMP, the Det will define the requirements through the ITT, and complete a MOA or other written agreement that stipulates completion of the templates (to begin OT&E with production representative systems that have demonstrated stabilized performance in an operational environment) as part of the DT exit criteria. This can be achieved by planning to integrate DT and OT events to the extent possible. If, in the course of executing the Tasking Order, the Det determines that required capabilities and characteristics contained in the capabilities document provide insufficient criteria for an adequate evaluation of effectiveness and suitability, the Det shall approach the capabilities document approval authority through the acquisition Integrated Product Team (IPT) process to establish the level of required performance characteristics. The capabilities document approval authority shall establish the level of required performance characteristics. If the ITT process is unable to establish the appropriate performance criteria, the Det shall forward the issue through the CAG to the CC (info CV, XO, AS, and CA) for resolution with the capabilities document authority. As a minimum, the items in **Table 4.1.** will be taken into consideration when accomplishing OT planning.

4.6.1. OT Planning Objective. The objective of OT planning is to apply the EF areas specified in the Tasking Order, and to provide sufficient detail to execute the OT. The plan provides linkage between lower level data, information requirements, OIA and higher-level questions generated through the

scope/cost subprocess. Test planning provides the detail to the “who, what, when, where, why, how and how much” to complete the evaluation. The Det will ensure that all pertinent documentation and information related to a specific OT program be included and updated on the AFOTEC MIN. Products of OT planning may include: test plan, updated TRP, M&S plan, verification, validation and accreditation (VV&A) plan, program introduction document (PID), DMAP, DTP and the TRR. The OTPM test program network will reflect the tasks required to accomplish planning, execution, and reporting.

4.6.2. EOA/OA Differences with OT&E. The OA requirements for OT plans and TRRs may not be the same as for OT&E. OAs can range from limited document reviews to AFOTEC-led data collection events. The amount of AFOTEC data collection will be a key factor in determining the requirement for test plans and TRRs on OAs.

4.6.3. OTPM in the PDP. The test program network is an event driven project plan that defines the tasks, task dependencies, task durations, variability, and resources required to meet the objectives of the test program or a piece of the overall test program (e.g., an OA report). It provides the TD a documented roadmap for accomplishing the test and a good estimate of the time and resources required to meet the objectives of the Tasking Order. Used properly, it provides advance warning of problems meeting program commitments and can serve as a tool to develop and evaluate alternatives to meet changing requirements. All test programs will develop an OTPM network and maintain the network to reflect the current status of the program. The ultimate goal of the network is to ensure that AFOTEC meets the required delivery date for the information or product required by the user, Milestone Decision Authority (MDA), or DOT&E.

4.6.4. OT Plan. The OT plan will provide sufficient detail to identify data and resource requirements to support the assessment/evaluation. It will list COIs, MOEs and Measures of Performance (MOP), as well as describe test limitations, safety and security issues, specific test events, scenarios, schedule, measures, data collection (who, what, when, where, why and how), reduction, and analysis (see [Chapter 6](#) for ratings of COIs, MOEs and MOPs). It will show linkages between data to be collected, information to be obtained, and conclusions needed as described in the EF. It will also show differences between test scenarios versus operational scenarios and the tested system versus the planned operational system, and describe how these differences (limitations) will be addressed. The details of the OT plan will be reflected in the OTPM test program network.

4.6.5. Reliability, Availability, and Maintainability (RAM) Requirements. The Det will ensure that test planning is conducted to support necessary RAM (or reliability, maintainability, and dependability (RM&D) for some space and C4I programs) evaluations for all acquisition programs. Software effects shall be included in system-level RAM measures and will be addressed by the joint reliability and maintainability evaluation team (JRMET). The JRMET and the test data scoring board (TDSB) may assist in planning for, analyzing, and categorizing RAM data.

4.6.6. ES&H Review. This review process culminates in the ES&H certifications required prior to the TRR. The Det will ensure ES&H reviews are conducted with SE on all OT plans and mission scenarios. The review process will culminate in an ES&H Certification Board, which will include the completed AFOTEC Environmental Impact Survey (AEIS). The Certification Board also ensures open issues are addressed and hazards are adequately mitigated or closed out prior to OT&E. The test team will schedule the ES&H Certification Board with SE with enough time to implement new risk mitigation measures or obtain command section acceptance of the existing risks.

Table 4.1. Planning Considerations

<ul style="list-style-type: none"> • Threat or threat-representative forces, targets, and threat countermeasures, validated in coordination with Defense Intelligence Agency (DIA), shall be used.
<ul style="list-style-type: none"> • Use production/production-representative articles for the dedicated phase of OT&E supporting the full-rate production and/or deployment decision.
<ul style="list-style-type: none"> • Take maximum advantage of training or exercise activities to increase the realism and scope of operational testing and to reduce testing costs. Ensure participation is as non-intrusive on the exercise's objectives/goals as possible.
<ul style="list-style-type: none"> • Use an integrated DT/OT approach and CTF to the maximum extent possible.
<ul style="list-style-type: none"> • Plan to take full advantage of existing investments in DoD ranges and facilities. If using Nevada Test and Training Range (NTTR), coordinate with OL-NN, and for all other DoD ranges and facilities contact TST. If requesting new test capability or infrastructure for NTTR, contact XPZ.
<ul style="list-style-type: none"> • Use M&S when appropriate for planning and data evaluation to augment, extend, or enhance field test results.
<ul style="list-style-type: none"> • Develop accreditation plans and reports for all test processes that involve the use of models (or simulations). Guidance is in AFOTEC PAM 99-103, Chapter 4.
<ul style="list-style-type: none"> • Plan to evaluate nuclear survivability requirements from the applicable capabilities document. Plan on integrated DT/OT events, funded by the Program Office.
<ul style="list-style-type: none"> • Typical users shall operate and maintain the system or item under conditions simulating combat stress and peacetime conditions using the CONOPS and Maintenance Concept.
<ul style="list-style-type: none"> • Ensure adequate guidance and training is provided regarding system contractor involvement.
<ul style="list-style-type: none"> • Determine if the minimum acceptable operational performance and suitability requirements as specified in the applicable capabilities document have been addressed.
<ul style="list-style-type: none"> • Identify environmental, safety and health issues, risks to system design and testing, and recommend corrective actions to reduce those risks to acceptable levels.
<ul style="list-style-type: none"> • Determine if there are any significant weather/space environment impacts that will affect system operational effectiveness.
<ul style="list-style-type: none"> • Consider if there is an impact by the system software in supporting operational requirements (Note: Software evaluation/assessment will be reviewed and approved by the XO at the ITD)
<ul style="list-style-type: none"> • Reduce test constraints and limitations to the minimum feasible. Elevate issues if necessary to preclude unnecessary risk.
<ul style="list-style-type: none"> • Involve JITC for certification for compatibility, interoperability, and integration.
<ul style="list-style-type: none"> • Involve AFIWC (or applicable agency) for information assurance.
<ul style="list-style-type: none"> • Involve AFFMA for electronic spectrum management issues.
<ul style="list-style-type: none"> • Ensure applicable emphasis items located under the AFOTEC Plans and Policy Tab on the MIN are addressed.

4.6.7. System Contractor Involvement and Data Validation. The following guidance will be applied to all AFOTEC OT planning and execution activities (i.e., all ACATs).

4.6.7.1. Each Det will ensure that test teams receive adequate guidance and training on system contractor involvement (based on the type of test activity and other service involvement). Particular attention should be applied to the early identification and validity/credibility of data collected during an EOA/OA/OUE or the integrated DT/OT for subsequent use in a dedicated OT&E. Additionally, test data shall be tagged as to whether it came from contractor, developmental, integrated testing or dedicated OT&E. This will facilitate any separate analyses to determine the compatibility of previously-collected test data with the data from dedicated OT&E. XOT will provide appropriate training support for this requirement.

4.6.7.2. Each Det (through the test team) is responsible for including appropriate information in the program's TEMP, OT&E plan, and final report on system contractor involvement (to include procedures taken to mitigate the potential conflict of interest of contractor involvement). Further, the Det is responsible for ensuring that all data subsequently used for OT&E reporting are valid and credible. If there is a question/concern about contractor involvement influencing data validity, contact the AFOTEC Legal Counsel (LC) for a legal opinion, or do not use the data to support the OT&E results.

4.6.8. Annotation of the Last Test Event (LTE). The LTE is used by AFOTEC to ensure timeliness of the final report (see [Chapter 6](#)). The Det will ensure the LTE is identified and annotated in Section V of the OT plan, and included in the TRR (not required for E/OAs). The LTE will be the last specific event of a test (e.g., the last sortie, the conclusion of the JRMET, after completion of data analysis, etc.). Updates (if any) to the LTE subsequent to the TRR must be approved by the Detco and then annotated on the MIN. The LTE will be input into the OTPM test program network. If an Interim Summary Report (ISR) will be accomplished, the final report coordination schedule ([Table 6.1.](#) and [Table 6.2.](#)) may be modified upon Detco request and XO approval. The Det may delay initial submission of the final report until after the ISR is signed. In this case, the LTE for the final report is the date the ISR is signed by the CC.

4.6.9. Test Team Structure. Test teams may consist entirely of AFOTEC personnel or may be augmented by a MAJCOM. The Detco will ensure, whenever possible, that AFOTEC personnel are in the key management positions. The following are typical positions: TD, deputies for operations, analysis, and logistics. Additional AFOTEC functional expertise not organic to the test team can be found in AFOTEC PAM 99-103, chapter 1.

4.6.10. Test Team Training. Before initiating the test, all OT&E members and support personnel will be trained on the general principles and policies of testing, and on the test program itself, commensurate with each team member's responsibilities. XOT is the AFOTEC OT&E training focal point, and conducts a variety of training courses that cover that portion of the training required by test team members. System training is the responsibility of the SPO.

4.6.11. Support Agreements. Support agreements document recurring support requirements given to or received from another DoD or non-DoD Federal activity. The Det will ensure appropriate MOA/MOU and Host-Tenant Support Agreements (HTSA) are prepared for the detachment, all operating locations, and all test support activities. All such MOAs/MOUs/HTSAs must be coordinated through XP (AFOTEC Support Agreement Manager). The CV is the approval authority for all support agree-

ments. XP maintains copies of all approved MOAs/MOUs/HTSAs, and the Det should maintain a copy in the test program case file.

4.6.12. **TRP.** The Det will ensure that the numbers, skills, and reporting dates of test team members included in the TRP continue to meet program objective memorandum (POM) input requirements. The TRP must identify AFOTEC contractor support requirements, in addition to listing those resources outside agencies have agreed to provide (i.e., flying hours, equipment, range time, etc.). When it is determined that MAJCOM resources will be needed in the current fiscal year, in the budget year, or the first year of the POM, the Det will sign out the TRP for MAJCOM coordination. The Det will coordinate with RM/XOR throughout the OT planning phase to execute the approved test budget. Any real or anticipated changes to the test budget will be coordinated with XO and formally documented in the TRP. Any changes to unit manning allocations must be coordinated with XO/DP/XP and approved by CV. Note: due to their client-funded nature, a TRP is not required for NTA programs.

4.6.13. **Unfunded Requirements.** Test teams will coordinate unfunded requirements with XOO and XOR for XO approval. Following approval, unfunded monies will be distributed after the Det has spent or is close to spending the money already distributed to them, according to their obligations plans.

4.6.14. **Returning a Program to Discovery or Scope/Cost.** Situations may dictate a program return to either discovery or scope/cost. This action can be directed either by XO or Det recommendation. If returned to discovery, the Det will ensure that an Involvement Order cancellation notice be coordinated through XO (including rationale), who will then issue the notice. If returned to scope/cost, the Det will ensure coordination with both AS and XO (including rationale), and specify what scope/cost activities need to be re-accomplished.

4.7. Coordination of OT Plans.

4.7.1. **Internal-AFOTEC Coordination of OT Plans.** Coordination requirements, timelines and required OPRs for all OT plans are shown at [Table 4.2](#). Any changes to the coordination requirements will be documented in the Tasking Order. CC is the approval authority for test plans unless otherwise specified in the Tasking Order. Before the plan can be entered into AECS for coordination, it must have an accurate distribution statement and a control number. The AFOTEC Scientific and Technical Information Officer (STINFO) in HO will assist the test team with selecting the right distribution statement for the plan IAW AFOTECI 61-204, *Disseminating Scientific and Technical Information*. Once done, HO will provide the report control number. See AFOTEC PAM 99-103, Chapter 5, for more information on distribution requirements. The Det will coordinate on the OT plan, then forward the document to the CAG for headquarters staffing via AECS. The test plan distribution list will include HO as receiving an electronic copy (portable document format, or pdf) of all approved test plans. Only those plans for DOT&E oversight programs require a briefing. If a briefing to the CC is required, follow paragraph [1.15](#) of this instruction. An electronic copy of the briefing will be maintained on the MIN. Briefings shall be in the AFOTEC standard format, which is located under “Templates” on the MIN homepage under the Plans and Policy tab.

4.7.2. **External-AFOTEC Coordination/Distribution of OT Plans.** OT plans must be approved prior to external AFOTEC release. Once the plan has been through the internal AFOTEC approval process, then a copy is submitted to applicable outside agencies for their parallel review and comment. [Table 4.2](#) summarizes the briefing and plan-approval schedule for all OT&E plans (unless otherwise

directed in the Tasking Order), to include required briefings/delivery dates for programs on the DOT&E-oversight list.

4.7.3. **Modifications to OT Plans.** Substantive changes to test programs will be approved by XO and reflected in the OTPM test program network.

4.7.4. **AFOTEC-Led MOT&E.** When the Air Force is the lead service for MOT&E, the participating service representatives help write and coordinate the OT plan. The supporting services may develop their own supplemental OT plans to satisfy individual service requirements. If the MOT&E is a parallel effort (conducted concurrently by separate test teams), the MOT&E plan will be developed either in volumes or supplements. AFOTEC will be responsible for developing the lead OT plan volume/supplement and the Air Force OT plan volume/supplement. The supporting services will develop their own OT plan volumes/supplements. Refer to “Memorandum of Agreement on Multiservice Operational Test and Evaluation (MOT&E)” found on the MIN under the Plans and Policy tab.

4.7.5. **Non-AFOTEC-Led MOT&E.** Without prior agreement to the contrary, OTAs will follow the guidelines of the lead service. When another service has been identified as lead, AFOTEC may develop an independent OT plan, at the discretion of CC or as designated. The decision whether or not to have an OT plan independent from the lead service will be documented in the Tasking Order. Appropriate information from AFOTEC's OT plan will be included in the lead service OT plan.

Table 4.2. OT&E Plan Approval Cycle

ACTION	OUTCOME	TIMING TO COMPLETE (No-later-than date)
TD brief OT&E concept to SPO, AF/TE, and DOT&E as required	Information provided to external agencies	Normally, 1 year before Test Start
TD brief the OT&E plan to AF/TE, then DOT&E	DOT&E review	120 Days before test start
TD submit AFOTEC-approved OT&E plan to Program Executive Officer (PEO)/ Designated Acquisition Commander (DAC) and SPO	PEO/DAC information	90 Days before test start
TD submit approved OT&E plan to AF/TE	AF/TE review/coordinate	75 Days before test start
TD submits approved OT&E plan to DOT&E	DOT&E approval	60 Days before test start
TD conducts TRR and Certification Briefing	Approval of readiness by CC or designated representative	30 Days before test start

Highlighted boxes only required for programs on the DOT&E (OSD) Oversight List

4.8. Preparation for Certification of System Readiness for OT&E. Certification requires the developer to demonstrate stabilized performance in an operational (stressed) environment with a production representative article. The Det will ensure that realistic risk assessments are routinely accomplished throughout the development process for all acquisition programs, regardless of the ACAT (in accordance with (IAW) AFMAN 63-119, *Certification of System Readiness for Dedicated Operational Test and Evaluation*). Use the risk area templates found in AFMAN 63-119 to provide appropriate risk assessment information to the SPO and other decision makers well in advance of the final TRR briefing/certification. The Det must have early and continuous dialogue with the SPO and the DT community to accomplish the requirements addressed in the templates. Throughout the assessment process for OT readiness, the Det will ensure appropriate AFOTEC influence for satisfactory completion of DT responsibilities prescribed by DoDI 5000.2 and AFI 99-103, *Capability Based Test and Evaluation*. For multiservice OT&E programs where the AF is not the lead service, AFOTEC will use the certification guidance provided by the lead service.

4.8.1. Certification Acceptance or Non-Acceptance. The AFOTEC Commander will acknowledge the certification message and "accept" or "non-accept" the system before commencing dedicated OT&E. The acceptance or non-acceptance letter officially confirms OTA agreement (or disagreement) with the certifying official's assessments and conclusions, and the letter concurs (or non-concurs) with the decision to begin dedicated OT&E. The Det will elevate compliance problems through the CAG to XO, CV, and CC as appropriate, as early as possible to resolve OT&E issues.

4.8.2. Acceptance or Non-Acceptance Letter Contents. In drafting the acceptance/non-acceptance letter, the Det will consider the system's state of readiness for OT&E, the availability of resources necessary for the conduct of the OT&E, and whether or not operational effectiveness and suitability can be successfully evaluated. Also, discuss the impacts of any unresolved issues, caveats, limitations to test, or waivers in the certification message that bear on the decision to proceed with OT&E. Following the Commander's signature, the acceptance/non-acceptance letter will be sent to the certifying official with courtesy copies, as a minimum, to SAF/AQ, AF/TE, the PEO, DAC, SPO PM, HQ AFMC/DO, and the user(s).

4.9. TRR. The Det will ensure a TRR is prepared and presented prior to OT&E. The TRR will include an appropriate risk assessment of the acquisition program and the planned OT&E program so as to warrant test start approval from the authority specified in the Tasking Order. Additionally, the initial draft of the appropriate test report should be presented during the TRR briefing. For Oas, the Detco will recommend to XO whether a TRR is required (note: an ES&H Certification Board is still required). XO will determine whether a TRR will be conducted, and document this decision during the test plan review. The primary criteria for whether a TRR is conducted will be the extent of deployment of AFOTEC personnel for DT/OT or AFOTEC led data collection events. The TRR briefing guide is on the MIN under the Plans and Policy tab.

Chapter 5

OT EXECUTION

5.1. Introduction. The dedicated OT execution phase begins with the final approval of the TRR (or approval to proceed) and ends with completion of the last test event. See *Anatomy of a Program* on the Policy tab of the MIN homepage for a visual flow of events in the OT execution stage. OT&E may not begin until AFOTEC acceptance of the system certification as ready for OT&E is completed. The intent of this phase is to execute the test plan and gather the data/information required to complete the final report. Writing of the final report should begin in the planning phase and is continually updated throughout the OT execution phase. See the final report template on the Templates tab of the MIN homepage.

5.2. Final Preparation Prior to Test. Before beginning the actual execution of the test, the Det will ensure that the system and test team are fully ready to safely and effectively conduct the test. The Det is responsible for ensuring the establishment and implementation of detailed guidelines that clarify the roles, responsibilities, and rules of conduct that test participants and observers must follow during test execution. The Det will ensure compliance with this instruction and the provisions in AFI 99-103, **Chapter 7**, “Test and Evaluation Oversight and Reporting.” The Detco will ensure that all test participants and observers are briefed and trained on established guidelines and other critical test execution concerns like ES&H, CTF operations, and limitations on system contractor involvement. XOT supports this requirement through its test team training course. If more than one test location is used for a test mission, the Det should ensure that a designated responsible AFOTEC representative is present at each location.

5.3. Resource Management. The Det will ensure coordination with RM throughout the execution phase to execute the approved test budget. The Det will coordinate any real or anticipated changes to the test budget with XO and formally document the change on the MIN.

5.4. Test Execution. The Det will ensure execution of the OT in compliance with the OT plan.

5.4.1. Integrated Developmental Testing/Operational Testing (DT/OT). Integrated testing must not compromise either developmental or operational test objectives, but should be used to the maximum extent possible to achieve savings in time and resources. There are normally many opportunities early in testing for operational testers to modify DT events (without compromising test objectives) to both gather pertinent operational data, and to insert operational concerns early, leading to earlier system maturity. For AFOTEC, two goals of integrated DT/OT are to prove that the system under test is ready to enter dedicated OT, and to determine effectiveness, suitability, and OIA issues to the maximum extent possible. AFOTEC’s integrated testing objective is to structure the subsequent OT&E so that it will reinforce the information gained in the integrated DT/OT phase, and lessen the time spent in OT&E. In addition, integrated DT/OT is the proper way to evaluate nuclear survivability requirements.

5.4.2. OT&E. United States Code Title 10 requires OT&E for all major programs (usually associated with a dollar figure, see DoDI 5000.2, Enclosure 2) that are designed for use in combat. The primary purpose of OT&E is to conduct an independent (from both the developer and user) evaluation of the system’s operational effectiveness and suitability. For all other programs, IOT&E is not required (per AFI 99-103), but strongly recommended.

5.5. Required Reports While in Execution. During test execution, the Det is responsible for ensuring that all reports (e.g., MIN Operations Center, activity, status, significant test events, annual, and interim summary) are timely, factual, concise, complete, accurate, and balanced. AFOTEC PAM 99-103, **Chapter 5**, contains additional information on the types of reports that may be used in an OT program.

5.6. Test Data Sharing with Outside Organizations. Cooperation is important with the SPO, other testers, and contractors during DT, DT/OT, and OT&E. Consistent with AFOTEC's "no surprises" policy, AFOTEC test teams should strive to conduct OT as an "open book" test. System contractors and SPO personnel may be allowed to observe test events and data collection activities. Contractors may request formal access to the collected data through their sponsoring SPO. Data sharing should be on a non-interference basis and cause minimal disruption to test team activities; rules and procedures are established in an agreement prior to the test event. The Det will ensure common sense and sound judgment is exercised in the release of test data. The release of test data is not meant to imply test results or conclusions. Refer all outside requests for previously published OT&E plans and reports to HO with information copy to RMR. See the Test Data Sharing section in AFOTEC PAM 99-103, chapter 5, for additional information.

5.7. Deficiency Reporting. The Det will participate in the deficiency reporting process for their program IAW TO 00-35D-54, *USAF Deficiency Reporting and Investigating System*. Coordinate with SE for determining the category and actions required for closure of safety-related deficiency reports.

5.8. Pausing the Operational Test. There may be occasions that, despite the developer's best efforts, require some form of intervention short of a formal "stop test and decertification." In these instances, a pause in the operational testing may be warranted. The decision to pause the operational testing must not be undertaken without appropriate consultation between the test team, the Detco and XO. In addition, there needs to be an ongoing dialog between the acquisition leadership (PEO, Program Office) and the test team/Det senior leadership prior to the declaration of a pause in the OT&E. If AFOTEC is the lead OTA for an MOT&E, AFOTEC will coordinate the decision to pause test with the other OTA(s) (note: Pausing a multiservice OT&E may not be an acceptable option to the other OTA(s) and a formal "Stop Test" may be required). Any action to pause or stop a dedicated phase of OT&E will be coordinated with the AFOTEC senior staff.

5.8.1. Test Pause Considerations. The decision to declare a pause during operational testing should take into account the timing of where the operational test is in relation to the decision supported and whether or not the problem can be fixed in a reasonable amount of time (i.e., if the pause and resulting corrective actions cannot positively affect the decision being supported by the OT&E, then there may be no reason to pause the test). If the pause is declared in order to allow the developer to make fixes to the system, the proposed fixes must be examined to determine the impact on already-completed and future operational testing. Appropriate reporting (Situation Reports, Daily Reports) must occur so that the AFOTEC leadership and appropriate external organizations are made aware of the situation. The need for multiple pauses may indicate an unstable system configuration and the Det may want to consider a formal "Stop Test."

5.8.2. Restarting. Following the decision to pause the OT&E, the Det will establish criteria to restart the OT&E. A formal TRR is not required prior to restarting the OT&E after pausing, unless the Detco or HQ AFOTEC requests one. However, the Det must understand the impacts of any changes to the system configuration made by the developer (i.e., changes made to the system could affect the validity

of the data already collected, sufficient time to collect new data, etc.), and must be confident in the system's ability to complete the remainder of the OT&E.

5.9. Stop Test and Decertification. There may be occasions when systems may fail to perform as planned, and continuation of OT&E would not be in the best interests of the government. In these cases, either the CC or the certifying official has the option to decertify the system and return it to the Program Office for corrective action. If circumstances warrant, and a decision to stop operational testing is contemplated, the Det should immediately consult with the AFOTEC chain of command in order to determine the appropriate course of action. If safety problems are observed during operations or maintenance activities that endanger personnel or could damage equipment, the Det will pause the test during stop test/decertification discussions. In addition, an on-going dialog between the acquisition leadership (PEO, Program Office) and the Test Team/Det senior leadership is required prior to the "stop test" declaration. If the OT&E is a MOT&E, and AFOTEC is the lead OTA, include the other OTA(s) in the discussion leading up to the "stop test" declaration for the operational testing.

5.9.1. Stop Test/Decertification Message. If the CC decides to stop the test, the Det will prepare a "stop test - decertification" message. It will state the CC decertifies the system and returns the system to the Program Office for appropriate corrective action. The decertification message will clearly explain why the system is unable to complete the OT&E. The draft message should be sent to the AFOTEC command section, via e-mail, within 24 hours of stopping the test. After the CC approves the message, it is sent to SAF/AQ, AF/TE, the PEO, DAC, SPO PM, HQ AFMC/DO, and the user(s).

5.9.2. Recertification. Before AFOTEC resumes dedicated OT&E following decertification (regardless of whether it was the PEO or the AFOTEC Commander who decertified the system), the certifying official must again certify the system via message or letter after appropriate corrective actions have been taken by the SPO or other responsible party. Revisit and modify all AFMAN 63-119 templates as necessary, to improve future certification reviews of the system. As with the original certification process, AFOTEC should be involved in the recertification process so that the results of the recertification will not be a surprise, and will be favorable, well before the next AFOTEC TRR. Following the recertification process, a certification letter must be sent and the system must once again be accepted for restarting the dedicated OT&E. The same guidelines as for the original acceptance/non-acceptance letter apply for a recertification. If added costs are incurred due to slips or deferrals in the program, the Det will recoup these added costs from the SPO IAW AFI 65-601 Vol 1, *Budget Guidance and Procedures*, Chapter 14.

5.9.3. Program Modifications. Test pause, stop test, and recertification will require modifications to the OTPM test program network. The modification may be as simple as an adjusted Target Finish date or as complex as a partial rework of OTPM network tasks.

5.10. JRMET-TDSB. The Det will participate in the JRMET and TDSB while in OT execution. The TD or designated representative will chair the TDSB while in OT&E.

Chapter 6

OT REPORTING

6.1. Introduction. The Det will comply with the AFOTEC Tasking Orders, and the provisions in AFI 99-103, **Chapter 7**, “Test and Evaluation Oversight and Reporting,” during the OT reporting phase. The OT reporting phase begins with completion of the last testing event and ends with the signing of the associated final report. Bear in mind, the initial draft of the appropriate test report was presented for HQ AFOTEC review during TRR briefing. All final OT reports will follow the AFOTEC single report format (under “Templates” on the Plans and Policy tab on MIN homepage) in addressing operational effectiveness/suitability and OIA. NTA programs are authorized to use a client-approved format and approval process.

6.2. OT Reporting Considerations. The Det is responsible for implementing a responsive OT reporting strategy and schedule.

6.2.1. Provide all OT&E reports to the CSAF and the program MDA. For all ACAT I, ACAT IAM, and other OSD T&E oversight list programs, provide a report (ISR and/or Final Report) to DOT&E (via AF/TE) at least 45 days prior to the associated milestone or fielding decision.

6.2.2. All OT&E reports shall identify applicable system and test limitations (e.g., system performance or test resource limitations) and provide an assessment of the effect of those limitations on risk reduction/consideration for the system’s production and/or fielding decision.

6.2.3. For all OT, each Det is responsible for including appropriate information on system contractor involvement (to include procedures taken to mitigate contractor influence on test procedures). Further, the Det is responsible for ensuring that all data subsequently used for OT&E reporting are valid and credible.

6.2.4. Conclusions about DOT&E and other special interest items will be addressed in the executive summary and main body of the report. Use annexes only to capture detailed information on these items, as applicable.

6.3. OT Ratings.

6.3.1. When reporting a system’s operational effectiveness and suitability for all OT&E (all ACATs), limit the ratings to the following terms:

6.3.1.1. Effectiveness will be rated as “effective,” “effective for...(for EA programs)” “potentially effective,” or “not effective.”

6.3.1.2. Suitability will be rated as “suitable,” “suitable if...(for EA programs)” “potentially suitable,” or “not suitable.”

6.3.2. The term "potentially" may be used even though the evaluation criteria were not met if, in the test team's judgment, evidence exists that the user and program developer have the required plans and resources in place to fix the problem(s). If, based on the test team’s judgment, the program office/user does not have the necessary funds or plan to fix the system problem(s), the rating “not effective” or “not suitable” is appropriate. There can be situations where the system under test passes all capabilities document requirements but is not effective, perhaps due to considerations beyond the control of the system developer. There may also be situations where the system falls short of the capabilities

document requirements, but is judged to be operationally effective. The report narrative will present the facts in a balanced manner to support the fielding decision for the new combat capability. For reporting on an I/Q/M/FOT&E activity, the qualifier “potentially” is not normally used. If a test team is considering using “potentially” for rating the results of these activities, prior coordination with XO is required. When reporting on E/Oas and OUEs, it is still permissible for the test team to report operational effectiveness and suitability with qualifiers such as “marginally effective/suitable with qualifications.” The qualifier should either describe whether or not the system is progressing satisfactorily towards operational effectiveness/suitability, or characterize the system’s capabilities to date.

6.4. COI/Objective/MOE/MOP Ratings.

6.4.1. For I/Q/FOT&E:

6.4.1.1. Rate COIs based on the adequacy of, and the performance exhibited by, the collected data. Report each COI as “Satisfactory,” “Unsatisfactory,” or “Not Resolved.”

6.4.1.2. Objectives will not be rated. Use a narrative format to report whether or not the objective was achieved during the test.

6.4.1.3. Rate MOEs/MOPs as follows:

6.4.1.3.1. “Met Criteria” describes performance that met or exceeded a stated OT&E criterion or the stated aggregation outcome.

6.4.1.3.2. “Did Not Meet Criteria” describes performance that did not meet an OT&E criterion or the stated aggregation outcome.

6.4.1.3.3. Use “Not Tested” when performance has not been tested.

6.4.1.3.4. Use “Inconclusive” when performance has been tested, data are gathered, but the data and analysis do not support making a “met” or “did not meet” rating.

6.4.1.3.5. Use “No User Established Criteria, Report Only” when the user has not provided or agreed to a criteria for a specific measure that AFOTEC deems necessary to test. Report the results from this area as “Favorable” or “Unfavorable” and explain in a narrative statement. (e.g., average completion time, distribution of questionnaire ratings, or other summary statistics).

6.4.2. For E/Oas and OUEs (typically), COIs, rate MOEs, and MOPs as “Satisfactory Progress,” “Unsatisfactory Progress,” or “Not Observed.” However, if an OUE supports testing of a system that will not have a required follow-on dedicated OT&E, then the test team should use the OT&E ratings against the user requirements and test criteria/measures.

6.5. OIA. OIA will be grouped by “Assessment Statements” and “Topics.” These items will provide information on employing the system within the battlespace, and be assessed rather than rated. Assessment Statements and Topics are answered in a narrative format that documents the test team’s findings during the reporting subprocess. See AFOTEC PAM 99-103, chapter 4, and the Test Report Template (on the MIN) for further information.

6.6. Fielding Recommendations. For all OT&E (all ACATs), test teams may include a recommendation to “produce/buy/field” or “not produce/buy/field the system” in the “Commander’s Letter” portion of the final report. If such a recommendation is made, it will be based on both the evaluation of operational

effectiveness/suitability and the results of the OIA. These decisions must also involve considerable judgment on the part of the test team. The general question that must be answered in the production/buying/fielding recommendation and rating is, “can the system support the performance of the military mission for which it will be acquired?”

6.7. Prepare and Release an ISR. Accomplish a formal briefing and/or ISR in addition to the final report if a final report cannot be completed to support a timely decision. The Det will publish an ISR when the final report cannot be completed at least 45 days prior to the milestone decision or other significant program decision. If directed, an ISR is due to the CC within seven calendar days of test completion. The Det will staff the ISR (if required) to the CAG. The requirement for an ISR will be coordinated with XO and XP in advance. The CAG, with XO guidance, will determine the required staffing based on the required dates. The ISR will be marked with the appropriate distribution statement as detailed in paragraph 6.8. OTPM test program networks will reflect the requirement to coordinate and publish the ISR, if applicable.

6.8. Prepare and Publish Final Report. The Det prepares the report, and will send it to the CAG for coordination. Prior to sending to the CAG, the HO STINFO will assist the Det in selecting the correct distribution statement for the report IAW AFOTECI 61-204, and will provide a report control number. During coordination, the CAG assigns and tracks report suspenses, while the Det resolves comments and prepares the final draft package for command section review. All final reports are approved and released by the CC (unless otherwise directed) and should be written from that perspective. Prepare final reports following guidance in the Tasking Order and the Test Report Template (found on the MIN, Plans And Policy tab under “Templates”). AFOTEC attachments will not contain overall conclusions or recommendations about the system under test. Post the signed final report in the test management section of the MIN.

6.8.1. **Coordination of Final Reports.** Table 6.1. and Table 6.2. depict schedules leading to completion of the final report for all OT&E (Table 6.2. is for MOT&E reports). If an ISR will be accomplished, the final report coordination schedule may be modified upon Detco request and XO approval. The OPR may delay initial submission of the final report until after the ISR is signed. In this case, the “LTE” for the final report will be the date the CC signs the ISR. The final report will follow all provisions of the Test Report format, found on the MIN homepage under the Plans and Policy tab under “Templates”. Note: command section coordination of NTA final reports is accomplished to keep the headquarters staff aware of NTA activity. CC approves NTA reports for release by the Det 1 CC.

Table 6.1. Report Approval Cycle for AFOTEC Tests

ITEM	ACTION
Projected dates (Days are work days)	OPR provides two dates – projected LTE and known Full-Rate Production (FRP) decision, fielding decision, or Initial Operational Capability (IOC). Submit to CAG corporate account and update MIN (due when known).
LTE + 15 days	OPR submits final test report, into AECS for 2-letter coordination (XP, TS, SE, AS, XO, HO, and CA).
LTE + 19 days	Comments by reviewers are returned to the OPR via AECS.
LTE + 23 days	OPR submits final test report into AECS for Command Section coordination (which includes a two-day 0-6 level review of the final document after completing 2-letter coordination).
LTE + 31 days	OPR resolves final report issues with XO, CA, or CV (if required). Each OCR “approves” the document via AECS. CC is notified automatically the document is ready for “signature.”
LTE + 33 days	Submit final report briefing read-ahead to CAG, XP, TS, AS, SE, XO, and CA.
LTE + 35 days	Hold pre-briefing (XO chair) of the final report briefing. Invite AS, TS, XP, SE, and CA.
LTE + 36 days	Present final report briefing to CC/CV and Senior staff; CC/CV signs final report or provides comments via AECS.
Signature + 5 days	Approved final report made ready and distributed.

6.8.2. **Report Supplements.** The Det will ensure that supplements published separately from the test report will have a cover, signature page, appropriate distribution and classification statements, and a properly completed report documentation page (SF 298). The Det will ensure coordination and approval of supplements is accomplished at the same level as the original report.

6.8.3. **Final Report Publication and Distribution.** RM will ensure standardization for publication and distribution. The CAG will forward the final report (with signature) to SC for format conversion of all final reports with classifications up to SECRET. Documents classified above the Secret level are handled on a case-by-case basis in coordination with the originator and RMSC. RM will distribute the final report. Distribution of the final report varies by type of OT, oversight and complexity of the program.

6.9. Final Report Briefing. The Detco will ensure the final report briefing is prepared and presented to the CC prior to final report or ISR approval IAW paragraph 1.15. Coordinate with the CAG all draft briefings being presented to the CC. The Det will maintain an electronic copy of the approved briefing on the MIN. Briefings should be in the approved AFOTEC briefing format found on the MIN. The Det will encourage members from the developer and user communities to participate in the briefing. Prepare an abbreviated version of this briefing for external customers. See “Templates” under the Plans and Policy tab on the MIN for the final report briefing guide.

Table 6.2. Report Approval Cycle for AFOTEC MOT&E Tests

ITEM	ACTION
Projected dates (Days are work days)	OPR provides two dates – projected LTE and known FRP decision, fielding decision, or IOC. Submit to CAG corporate account and update MIN (due when known).
LTE + 15 days	OPR submits final test report into AECS for 2-Letter coordination (XP, TS, SE, AS, XO, HO, and CA).
LTE + 19 days	Comments by reviewers are submitted to the OPR via AECS.
LTE + 20 days	Return to XO for review of comments and resolution (include comment resolution matrix).
LTE + 23 days	OPR forwards final test report to applicable service OTAs for coordination.
LTE + 44 days	Coordination/comments by Service OTAs are returned to the OPR (this includes OTA Commander's signature).
LTE + 51 days	OPR submits final test report into AECS for Command Section coordination (which includes a two-day 0-6 level review of the final document after completing 2-letter coordination).
LTE + 59 days	OPR resolves final report issues with XO, CA, or CV (if required). Each OCR "approves" the document via AECS. CC is notified automatically the document is ready for "signature."
LTE + 61 days	Submit final report briefing read-ahead to CAG, XP, TS, AS, SE, XO, and CA.
LTE + 63 days	Hold pre-briefing (XO chair) of the final report briefing; invite AS, TS, XP, SE, and CA.
LTE + 64 days	Present final report briefing to CC/CV and Senior staff. CC/CV approves final report or provides comments via AECS.
Signature + 5 days	Approved final report made ready and distributed.

6.10. Briefing to Outside Agencies. Briefings for ACAT I programs or any program on the DOT&E oversight list must first be coordinated as detailed in [Table 6.1.](#) or [Table 6.2.](#) (as appropriate), and approved by the CC before they are presented to AF/TE or DOT&E. CC approval of the final report itself is not required before briefing AF/TE or DOT&E. When report briefings are required/requested, the Det will provide a draft release message (either message, email, or fax format) for CC approval. The correspondence will be addressed to key program participants and decision-makers and include the anticipated time the briefing will be available. The lead service OTA for an MOT&E will be responsible for preparing all required OSD briefings. The Det will coordinate these briefings with all participating OTAs, as outlined in the test program MOA.

6.11. OTPM Final Report and Briefing Tasks. OTPM test program networks will include the final report publication and briefing tasks, as well as tasks that define briefings to outside agencies.

Chapter 7

OT CLOSEOUT

7.1. OT Closeout. The Det accomplishes the required documentation to confirm closeout. There are two types of OT closeouts: OT Program Closeout and OL Closeout.

7.2. OT Program Closeout. Program Closeout formally closes out a program. Program Closeout begins with a Closeout Order issued by XO and ends with the Det submitting a memorandum for record (MFR) (due seven work days after completion of the last action identified in the Closeout Order). Use the template provided under “Templates” under the Plans and Policy tab on the MIN. After receipt of the MFR, XO will terminate the program on the MIN. Note: for NTA programs that do not mature beyond an Involvement Order, the Det can initiate closure with a letter to the XO.

7.3. OL Closeout. As part of Program Closeout, the OL where the OT was conducted may also be closed. The TD will submit the inactivation report to the CC within 30 days of final report signature for the program. Use the Inactivation Report template (found under “Templates” under the Plans and Policy Tab) on the MIN. Note: for NTA programs that do not mature beyond an Involvement Order, the Det can initiate closure with a letter to the XO. The OTPM network will include the standard OT program closeout tasks.

FELIX DUPRÉ, Major General, USAF
Commander

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

National Security Space Acquisition Policy 03-01

DoDD 5000.1, *The Defense Acquisition System*

DoDI 5000.2, *Operation of the Defense Acquisition System*

AFPD 99-1, *Test and Evaluation*

AFI 99-103, *Test and Evaluation Interim Guidance*

AFMD 14, *Air Force Operational Test and Evaluation Center*

AFOTEC PAM 99-103, *AFOTEC Operational Test and Evaluation (OT&E) Guide*

Abbreviations and Acronyms

ACAT—Acquisition Category

ACTD—Advanced Concept Technology Demonstration

AECS—AFOTEC Electronic Coordination System

AEIS—AFOTEC Environmental Impact Survey

AFI—Air Force Instruction

AFFMA—Air Force Frequency Management Agency

AFIWC—Air Force Information Warfare Center

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFMD—Air Force Mission Directive

AFOTEC—Air Force Operational Test and Evaluation Center

AFOTE CI—Air Force Operational Test and Evaluation Center Instruction

AFOTEC PAM—Air Force Operational Test and Evaluation Center Pamphlet

AFPD—Air Force Policy Directive

AFSPC—Air Force Space Command

AF/TE—Air Force Test and Evaluation

AoA—Analysis of Alternatives

ATD—Advanced Technology Demonstration

BI—Battlelab Initiative

BMP—Business Management Process

CAG—Commander’s Action Group
CDD—Capability Development Document
COA—Course of Action
COI—Critical Operational Issue
CONOPS—Concept of Operations
CONUS—Continental United States
COTR—Contracting Officer Technical Representative
COTS—Commercial Off-the-Shelf
CPD—Capability Production Document
CRD—Client Requirements Document
CSAF—Chief of Staff of the Air Force
CTF—Combined Test Force
DAC—Designated Acquisition Commander
Det—Detachment
Detco—Detachment Commander
DIA—Defense Intelligence Agency
DMAP—Data Management and Analysis Plan
DoD—Department of Defense
DOT&E—Director, Operational Test and Evaluation
DT—Developmental Test
DT&E—Developmental Test and Evaluation
DTP—Detailed Test Procedures
EA—Evolutionary Acquisition
EF—Evaluation Framework
EOA—Early Operational Assessment
E/OA—Early/(and/or) Operational Assessment
ES&H—Environmental, Safety and Health
FAX—Facsimile
FDE—Force Development Evaluation
FMB—Financial Management Board
FOT&E—Follow-on Operational Test and Evaluation
FRP—Full-Rate Production

GFE—Government Furnished Equipment
HHQ—Higher Headquarters
HQ—Headquarters
HTSA—Host-Tenant Support Agreement
IAW—In Accordance With
ICD—Initial Capabilities Document
ILSP—Integrated Logistics Support Plan
IOC—Initial Operational Capability
IOT&E—Initial Operational Test and Evaluation
IPT—Integrated Product Team
ISP—Information Support Plan
ISR—Interim Summary Report
ITD—Initial Test Design
ITT—Integrated Test Team
JITC—Joint Interoperability Test Command
JRMET—Joint Reliability and Maintainability Evaluation Team
LRIP—Low Rate Initial Production
LTE—Last Test Event
MAA—Mission Area Assessment
MAJCOM—Major Command
MAP—Mission Area Plan
MDA—Milestone Decision Authority
MFR—Memorandum for Record
MIN—Management Information Network
MOA—Memorandum of Agreement
MOE—Measure of Effectiveness
MOP—Measure of Performance
MOT&E—Multiservice Operational Test and Evaluation
MOU—Memorandum of Understanding
M&S—Modeling and Simulation
NCC—Necessary Condition Chart
NDI—Non-Developmental Item

NTA—Nontraditional Assessment
NTTR—Nevada Test and Training Range
OA—Operational Assessment
OAS—Office of Aerospace Studies
OCR—Office of Collateral Responsibility
OIA—Operational Impact Assessment
OL—Operating Location
OPR—Office of Primary Responsibility
ORM—Operational Risk Management
OSD—Office of the Secretary of Defense
OT—Operational Test
OT&E—Operational Test and Evaluation
OTA—Operational Test Agency
OTPM—Operational Test Program Management.
OUE—Operational Utility Evaluation
PDF—Portable Document Format
PDP—Product Delivery Process
PEO—Program Executive Officer
PEP—Product Evaluation Process
PID—Program Introduction Document
PM—Program Manager
PMD—Program Management Directive
POC—Point of Contact
POM—Program Objective Memorandum
PRB—Policy Review Board
QOT&E—Qualification Operational Test and Evaluation
RAM—Reliability, Availability, and Maintainability
RFP—Request for Proposal
RM&D—Reliability, Maintainability, and Dependability
RRB—Requirements Review Board
RTO—Responsible Test Organization
SAF—Secretary of the Air Force

SAP—Special Access Program

SAMP—Single Acquisition Management Plan

SAR—Special Access Required

SPO—System Program Office

STAG—Special Test Assessment Group

STAR—System Threat Assessment Report

STINFO—Scientific and Technical Information Officer

TD—Test Director

TDSB—Test Data Scoring Board

TDY—Temporary Duty

TEMP—Test and Evaluation Master Plan

TO—Technical Order

TOC—Theory of Constraints

TRM—Test Resource Manager

TRP—Test Resource Plan

TRR—Test Readiness Review

TTP—Tactics, Techniques, and Procedures

VV&A—Verification, Validation and Accreditation