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Test and Evaluation

CONDUCT OF OPERATIONAL TEST AND EVALUATION

COMPLIANCE WITH THIS INSTRUCTION IS MANDATORY

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This instruction provides the Air Force Operational Test and Evaluation Center (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 (AFOTECPAM) 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*, DoD Regulation 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs*, Air Force Policy Directive (AFPD) 99-1, *Test and Evaluation Process*, Air Force Instruction (AFI) 99-102, *Operational Test and Evaluation*, and Air Force Mission Directive 14 (AFMD-14), *Air Force Operational Test and Evaluation Center (AFOTEC)*.

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Submit any modification (waiver) requests to this instruction or any higher headquarters guidance through your Policy Review Board (PRB) member, or to AFOTEC/XP via the AFOTEC Policy Forum email account.

SUMMARY OF CHANGES

This instruction has been renumbered and supersedes AFOTEC Instruction (AFOTECI) 99-101, AFOTECI 99-102, dated 20 June 00; and AFOTECI 99-103, dated 17 Dec 99. Planning/Programming, Resource Management, and Personnel Management process documentation has been removed and the information have been given to the process owners for control. The following AFOTEC policy letters have been incorporated and are superseded: 98-03, 98-06, 98-11, 00-01, 00-06, 00-07, 00-09, 00-10, 00-11, 00-12, 01-01, 01-02, 01-03, 01-04, 01-05, 01-06, 01-08. Policy letter 99-05, *Reliability, Availability and Maintainability Definitions for OT*, remains open awaiting rewrite of an Air Force-level instruction. Policy Letter 00-08, *Change to Distribution List for Certain OT&E Final Reports*, is rescinded by update of the final report template. Authority for issuing Involvement Orders has changed from AFOTEC/CV to XO. Operational Test Program Management information is included as applicable. New information concerning Policy, the Commander's Action Group, Detachment/Operating Location support of programs early, and Product Grandfathering is introduced. Anatomy of a Program reference information is included. The Air Force Requirements Oversight Council (AFROC) paragraph has been deleted, as the information was made obsolete with maturation of the Management Information Network (MIN). Evaluation Framework information has been modified. New procedures regarding Interim Summary Reports (staffing procedures and effect on the last test event) are included. The early involvement phase name has been changed to the discovery phase.

The instruction is divided into seven chapters, an overview chapter and a chapter for each of the business management and product delivery processes pertinent to any particular operational test and evaluation program. A brief overview of the Product Evaluation Process is included in chapter 1.

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CHAPTER 1
Overview

1.0. Terms of Reference.

In order for AFOTEC Detachment Commanders (Detco), Evaluation Team (ET), Special Test (ST) and other Directors 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), 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 requirements.

1.1. 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.

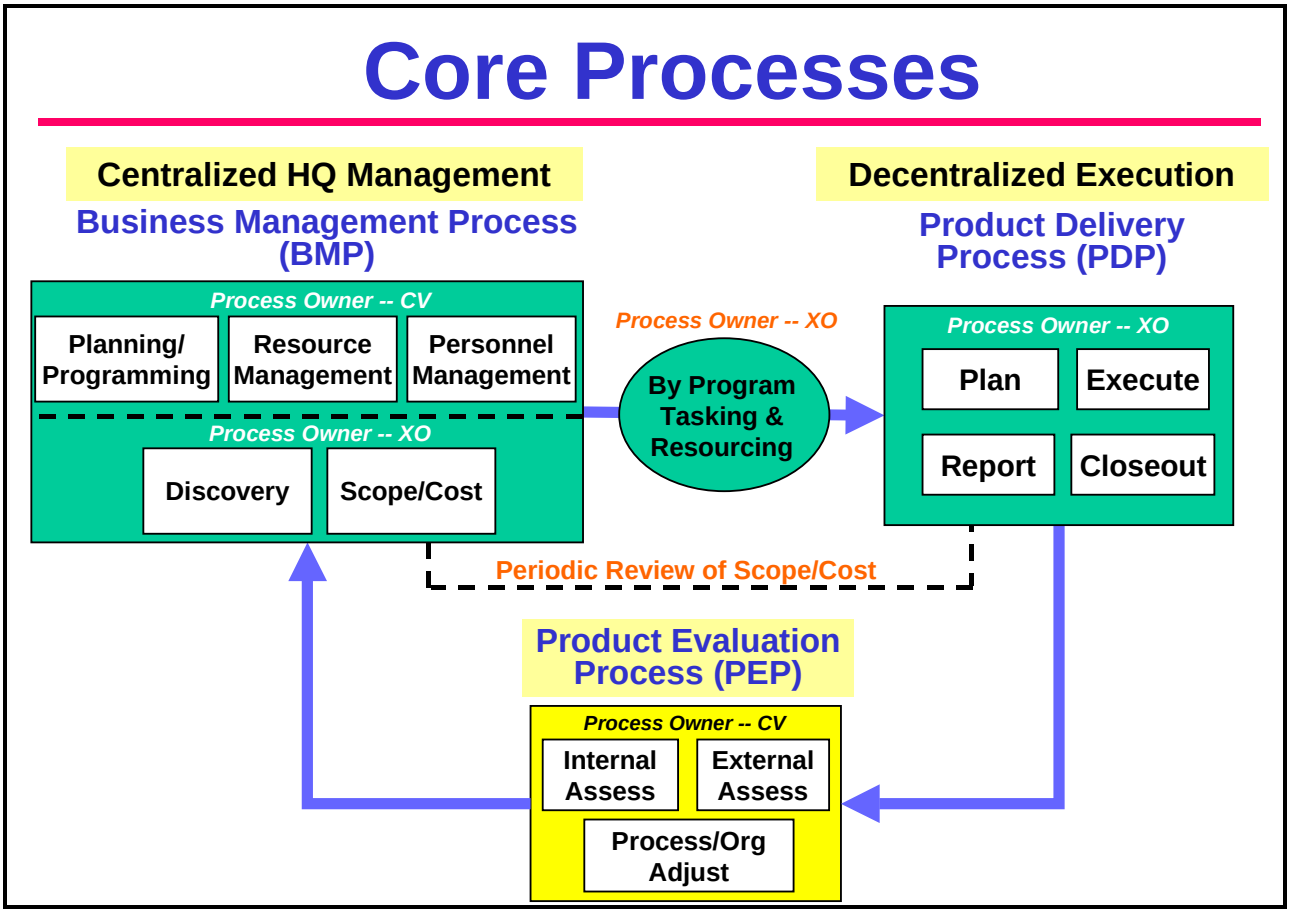

Figure 1.1. AFOTEC Core Processes

This instruction outlines mandatory procedures for those Business and Product Delivery Processes that pertain to any particular OT program, as well as containing procedures for the Product Evaluation Process (PEP). 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 remaining six chapters provide **mandatory directives, procedures and products** that must be accomplished during any particular

OT program (NTA procedures are excepted in some cases). The subprocesses covered by this instruction and their corresponding chapters are depicted in Figure 1.2. The PEP process is detailed in section 1.4.

1.1.1. Theory of Constraints (TOC).
The structured and disciplined approach to business management, product delivery, and product evaluation at AFOTEC is defined as TOC. 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. Each leadership tool considers the realities of constrained resources and their impact in the decision-making process.

1.1.2. Policy.
The AFOTEC Commander sets broad policy guidelines, and is the approval authority for all changes in policy. AFOTEC/XP articulates and disseminates this policy. XP ensures AFOTEC-wide OT policy development is accomplished via the PRB. Coordination procedures for policy issues unrelated to OT are not done through the PRB. Instructions for submitting policy not related to OT can be found on the MIN under the Policy Tab. XP will provide clarification and assist with policy interpretation as required.

1.1.3. Commander's Action Group (CAG).
The CAG provides a quality check and oversees the coordination of all documents which will eventually require AFOTEC/CV or CC approval/signature. "Command section" coordination includes XO, CA/CN, CV, and CC. Requirements for submitting test plans and final reports are contained in their respective chapters.

1.1.3.1. Documents requiring command section approval/signature.
The action officer must provide the CAG with the document name, office of primary responsibility (OPR), and CV/CC signature suspense date. This information is tracked by the CAG. The CAG provides the action officer with a suspense date for document submission to the CAG.

1.1.3.2. Two-letter coordination.
Complete two-letter coordination is the responsibility of the Det/ET/ST (or other Director), and this will be accomplished through use of the corporate accounts. Action officers must ensure "complete staffing" is accomplished for all taskers. A "no reply" does not constitute consent. Actions officers are responsible for following up with non-responding offices of collateral responsibility (OCRs) to complete the staffing process. Once full staffing has been completed, the document is submitted to the CAG by the agreed to CAG suspense date.

1.1.3.3. Documents for XO Approval.
Even though XO is part of command section coordination, they are also an approval authority. For those documents where XO is the final approval authority, these will be tracked by XOO. The CAG has no involvement in XO approved taskers.

1.1.3.4. Documents not requiring command section approval/signature.
Any office may generate a formal tasker for any activity that does not require command section involvement. The CAG does not have to be informed nor be involved with these taskers.

1.2. Business Management Process (BMP).
The BMP involves five corporate-managed activities or subprocesses: planning/programming, resource management, personnel management, discovery, and scope/cost. 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.

1.2.1. Planning/Programming, Resource Management, Personnel Management.
While the Business Management subprocesses that are owned by the CV (Planning/Programming, Resource Management, and Personnel Management) are important activities for any particular OT program, these subprocesses pertain primarily to AFOTEC's involvement in all programs as a whole. Therefore, these subprocesses apply only to those offices that execute them, and are not contained in this instruction. Primary subprocess managers (XP for Planning/Programming, RM for Resource Management, DP for Personnel Management) are responsible for process definition and management.

1.2.2. Discovery.
XO owns this subprocess. Discovery consists of: understanding global, theater, and continental United States (CONUS) operations; program discovery/identification; program review; the involvement decision; involvement order development; and involvement order coordination/approval. AFOTEC/AS executes this subprocess for traditional programs. AFOTEC/XO and the owning Det/ET/ST execute this subprocess for NTA programs. Discovery is detailed in chapter 2.

1.2.3. Scope/Cost.
XO also owns this subprocess, and AS executes it. Scope/cost consists of: understanding the system; developing the evaluation framework (EF); developing and briefing OT options; test option selection; tasking order development; and tasking order coordination/approval. Scope/cost is detailed in chapter 3.

1.2.4. Operational Test Program Management (OTPM) in BMP.
The OTPM Involvement Order to Tasking order network reflects the tasks required to move a program through discovery and scope/cost. See paragraph 2.8.

1.3. Product Delivery Process (PDP).
XO, as the PDP owner, ensures a standardized process is followed. PDP consists of planning, executing, reporting, and closeout (chapters 4-7). The Detco/ET/ST is the subprocess owner. The Det/ET/ST executes product delivery as directed in the Tasking Order and in this instruction.

1.3.1 Test Planning.
Test Planning consists of: 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 test resource plan (TRP); preparing the test readiness review (TRR) briefing; and conducting the TRR. Test Planning is detailed in chapter 4.

1.3.2. 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.

1.3.3. Test Reporting.
Test Reporting consists of final report writing; final report coordination; final report briefing; final report signing; final report publishing, and final report distribution (with Interim Summary Reporting, if required). Test Reporting is detailed in chapter 6.

1.3.4. Test Closeout.
Test Closeout consists of closeout order development, closeout order coordination, and complete closeout letter/memo. Test Closeout is detailed in chapter 7.

1.3.5. OTPM in PDP.
The OTPM test program network reflects the tasks required to move a program from planning to execution to reporting and closeout. See paragraph 4.5.3.

1.4. Product Evaluation Process (PEP).
CV is responsible for the PEP. The purpose of this process is to provide a means for improvement of AFOTEC processes and products. The PEP is a mechanism to affect the way a process is executed or a product is developed. All AFOTEC personnel are encouraged to identify areas requiring improvement. The PEP software program, located on the Management Information Network (MIN), is the method for making a PEP submission. This program contains guidance for inputting into the PEP, as well as input review, tracking, and resolution. The Detco/ET/ST will ensure test/business feedback (to include lessons learned from all test phases and processes/products needing management attention) both positive and negative, are documented and forwarded to XP via the Product Evaluation Process section under the Command Info tab labeled “Product Evaluation” on the MIN homepage. Test/business feedback, both positive and negative, may be entered electronically through the MIN. All feedback will be briefed at test plan approval briefing, TRR, and the final report briefing.

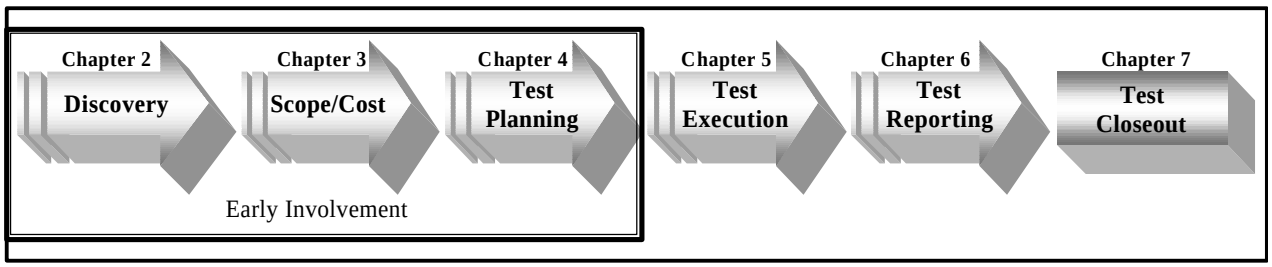

Figure 1.2. AFOTEC OT Involvement Process

1.5. Programmatic Considerations.

1.5.1. Operational Test Agency (OTA).

AFOTEC is charged to function as the OTA for all Air Force ACAT I, IA, II, and III programs, or as directed. The OTA is the organization designated to conduct the operational test activity. The core team/test team, with concurrence from AFOTEC leadership, will ensure fulfillment of the OTA responsibilities identified in AFI 99-102, chapter 4, "OT&E in the Acquisition Process," and chapter 6, "OT&E Planning."

1.5.2. 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 www.dote.osd.mil/oversight/index.html). Each AFOTEC program manager/test manager/test director (PM/TM/TD) is responsible for knowing the oversight list status of his/her program and ensuring the current status is stated on the MIN.

1.5.3. Major Command (MAJCOM) Force Development Evaluation (FDE) of Oversight Programs.

AS will review each MAJCOM oversight FDE program and make an involvement recommendation to XO to determine the extent of AFOTEC involvement. XO will then authorize a course of action and degree of involvement on a case-by-case basis. This involvement may range from cognizance, review, monitor, oversight and reporting to ownership. If AFOTEC involvement is recommended, a Memorandum of Agreement (MOA) will be written to detail the formal levels of cooperation between AFOTEC and the MAJCOM for testing and reporting responsibilities. Funding for programs that become AFOTEC-owned will be determined in the same manner as other unplanned, "pop-up" programs, as an unfunded requirement presented to the Requirements Review Group (RRG), and to the Financial Management Board (FMB).

1.5.4. Evolutionary Acquisition (EA).

Per DoD Instruction 5000.2, evolutionary acquisition strategies will become the preferred approach to satisfy operational needs. The Detco/ET/ST will ensure OT representation on EA spiral development Integrated Product Teams (IPTs) and active participation in combined test force (CTF)/developmental test (DT)/ and operational test activities in order to incorporate OT objectives. These objectives will measure system performance, and detect and identify system deficiencies, concept of operations (CONOPS) issues and mission impacts. The Detco/ET/ST 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/ET/ST or more formal report). The Detco/ET/ST will ensure adequate risk assessments are accomplished for each increment or evolutionary block, and make recommendations to XO for tasking of each. 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 Policy Tab) for future increments or blocks. See AFI 63-123, *Evolutionary Acquisition for C2 Systems*, for further information on evolutionary acquisition.

1.5.5. Commercial and/or Nondevelopmental Items (CaNDI).

The Detco/ET/ST will ensure sufficient test planning, execution and reporting are conducted for commercial and nondevelopmental items (including commercial-off-the-shelf items (COTS)).

1.5.6. Extended-Period, Small-Production Programs.

The Detco/ET/ST will ensure monitoring and/or participation in all relevant testing for programs that have extended, long development/construction phases and involve small procurement quantities (e.g., military satellite programs).

1.5.7. Special Access Programs (SAPs).
AFOTEC/STZ functions as AFOTEC's single focal point for all SAPs, and is the secretariat for 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. AFOTEC/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 SAP and designated non-SAP programs. Coordination and staffing of ST programs within AFOTEC will occur via the STAG or individual-STAG members as required.

1.5.8. Director, Operational Test and Evaluation (DOT&E) Emphasis Items.
For applicable programs on the DOT&E oversight list, the Detco/ET/ST will ensure emphasis contained in the AFOTEC plan and report templates (located on the MIN) are addressed. DOT&E policy letters on special interest items (e.g., information assurance, environmental electromagnetic effects, and interoperability) are available on the MIN → Policy → Policy Letters → HHQ Policy and Memoranda. AFOTEC/AS will appoint points-of-contact (POCs) for each of these areas and they should be consulted during evaluation framework development. AFOTEC/XOT will develop training procedures for these items.

1.5.9. Briefings to the AFOTEC Commander.
If briefing the AFOTEC/CC for program areas such as test plans, test readiness reviews, and final reports, etc., ensure that CV, CA/CN, XO, XP, AS and TS have been included as invitees. 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 invitees as soon as possible (no later than 3 working days) prior to the briefing. Before briefing the Commander, briefers should pre-brief XO, CA/CN, and CV to obtain approval to proceed. AFOTEC/CC approves all briefings related to oversight programs prior to being given outside of AFOTEC.

1.5.10. Use of General Aviation (GA) Aircraft .

1.5.10.1. Approval Authority.
Any AFOTEC test execution, test support, or mission-essential activity which requires the use of GA support must be approved by the XO or other official designated by the CV. This approval authority will specifically authorize the use of GA aircraft to support AFOTEC activities in accordance with (IAW) the definitions for the following categories.

1.5.10.1.1. Test execution: the use of aircraft to directly support test, assessment, or demonstration events; the aircraft and the pilot are an integral part of the activity.

1.5.10.1.2. Test support: the use of aircraft to indirectly support test objectives; the aircraft and pilot are not integral to specific test/assessment/demonstration events, but are integral to the supported activity.

1.5.10.1.3. Mission essential activity: essential flight activity for test support, yet does not directly support a specific AFOTEC test, assessment, or demonstration.

1.5.10.2. Pilot Requirements.
USAF aviators supporting tests will not accrue flying/gate time for the purposes of AFI 11-401, *Flight Management*. The pilot will be designated a member of the test, assessment, or demonstration team and be on government orders or carry a letter stating the pilot is performing mission-essential AFOTEC business.

1.5.10.3. Supplemental Requirements.
Follow AFOTEC headquarters operating instruction (HOI) 99-103, *Use of General Aviation (GA) Aircraft in Support of AFOTEC Official Business*, which further defines pilot qualifications, flight restrictions, and other details to ensure the proper documentation and safe conduct of test, assessment and demonstration support by AFOTEC personnel. HOI 99-103 may be found on the AFOTEC MIN at http://infonet/library/pubs.

1.5.10.4. Deviations/Variations.
Any deviations or variations from this policy require a waiver granted through the XO.

1.5.11. 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, educate external offices about the benefits of AFOTEC's involvement, and enhance other organizations' communications with AFOTEC.

1.5.11.1. Establish a working relationship with SPOs.
Dets/OLs collocated at Air Force Materiel Command product and logistics centers, if they have not already done so, 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 plan process and test strategy formulation as directed via an Involvement/Tasking Order or by XO. These 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 Master Plans (TEMP)/evaluation strategies, etc.), program reviews and forecasts, and other information that may be helpful to AS planning efforts.

1.5.11.2. Obtain program information.
Dets/OLs collocated at MAJCOMs and similar key agencies will obtain program information such as program priorities, ORDs; CONOPs, operating plans, and tactics, techniques, and procedures (TTP) as requested by AS. For example, Det 4's OL-LC at the Space and Missile Center (SMC) could become an integral member of the Air Force Space Command (AFSPC) and SMC modernization planning process (MPP) group, thereby providing AFOTEC early programmatic insight on new programs still in early concept phases. Whenever possible, the Dets/OLs should attend meetings that are in their geographical areas. Any such 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). In turn, AS will inform the Dets/OLs of any additional information requirements, programmatic concerns, and status of OT&E early planning efforts.

1.5.12. Mandatory Templates.
The mandatory OT plan/report (and briefing), technical review, test concept, test readiness review, and OT options templates/guides are provided on the MIN. Additional guidance on preparing these items is provided in the respective sections of AFOTECPAM 99-103.

1.5.13. Early Involvement.
Early involvement typically starts at or before Milestone A. Involvement by AFOTEC is intended to inject operational test and evaluation issues and concerns as soon as possible in the acquisition program. The intent is to achieve cost and schedule savings by recommending improvements in operational effectiveness and suitability into the design of the system. Early involvement continues through the start of dedicated OT&E to reduce program risk.

1.6. Anatomy of a Program.
Located on the MIN Policy page, the *Anatomy of a Program* is a graphical representation of a typical OT&E. Core/test team members are encouraged to refer to this program to visualize and better understand the requirements associated with each phase of a program.

1.7. 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. To prevent duplication of work (a new template is issued during the middle of writing a previously issued product template), the product OPR will seek approval from XO to have the product grandfathered. Once approved, the OPR will state such during the coordination process.

1.8. AFOTEC Contractor Considerations.
Detcos/ETs/ST 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 test team but they cannot be directly tasked by the test manager or the test team beyond the scope of the delivery order. Out-of-scope tasking is considered "personal services" which is illegal. 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/ET/ST contracting officer technical representative (COTR) requests intelligence release on behalf of the contractor. TSI will work with the Det/ET/ST or Director to ensure that all intelligence data necessary for the contractor to complete his/her obligations is released.

CHAPTER 2
Discovery

2.0. Introduction.

This chapter addresses the BMP subprocess of discovery for traditional OT programs. XO is the owner of this subprocess. AFOTEC/AS executes this subprocess for traditional programs. AFOTEC/XO and the owning Det/ET/ST execute this subprocess for NTA programs. For NTA process information, see paragraph 3.6. Figure 2.1 depicts both the subprocesses (along with scope/cost) leading up to Det/ET/ST tasking, and how these subprocesses interrelate. Scope/Cost is addressed in chapter 3.

2.1. Discovery Defined.

Discovery consists of: understanding global, theater, and CONUS operations; program discovery/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 combined 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.

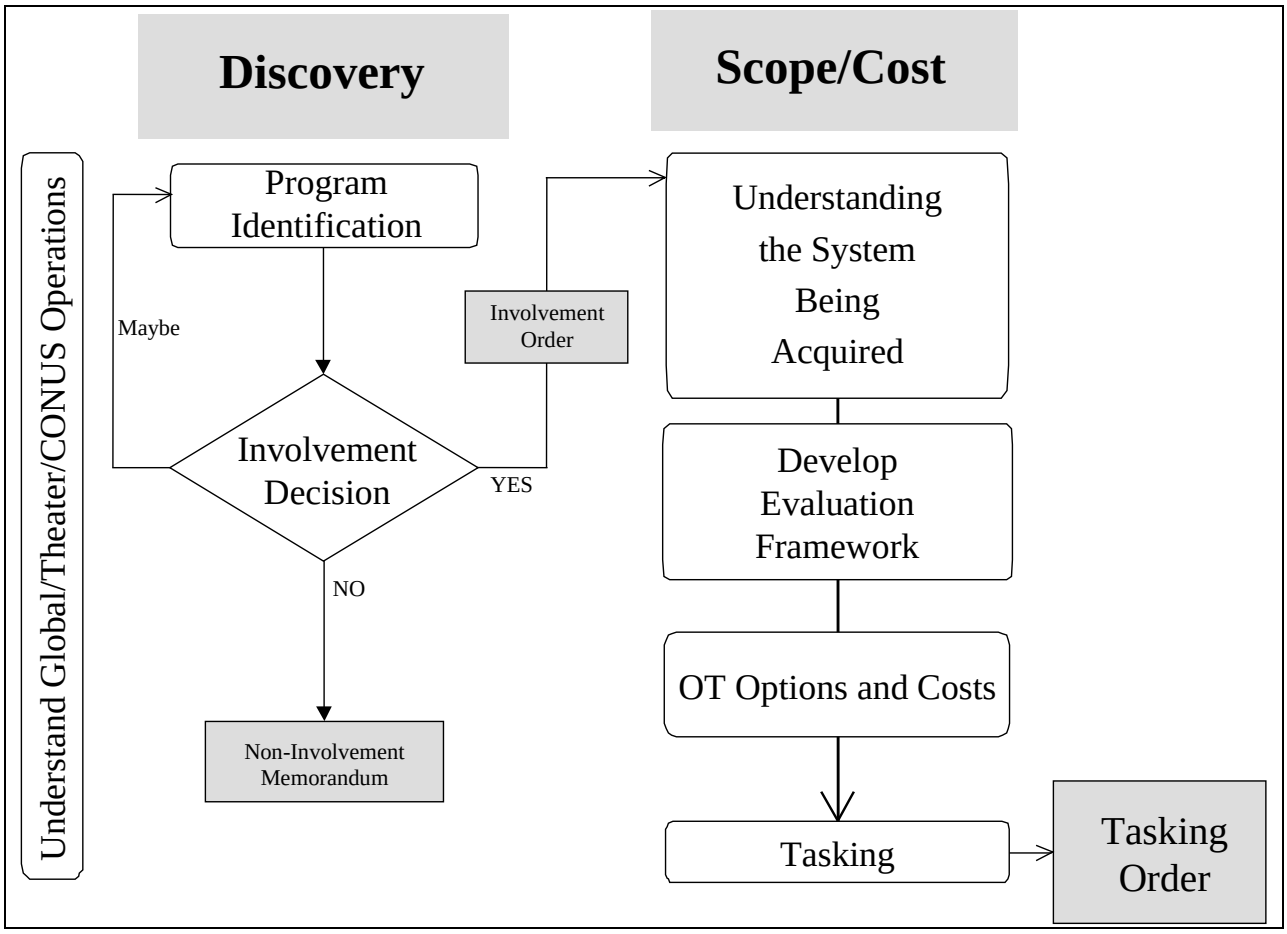

Figure 2.1. AFOTEC Discovery and Scope/Cost Subprocesses

2.2. Understand Global, Theater, and CONUS Operations.

This is a continuous AS activity where relationships are maintained with the Commanders-in-Chief (CINC) Joint Staffs and MAJCOMs in order to develop a clear understanding of all types of operations. AS will also maintain relationships with the CINC and MAJCOM exercise planning staffs to facilitate increased participation in exercises

and experiments to further broaden their understanding of all operations. Consequently, AS personnel are tasked to be AFOTEC's experts on battlespace operations.

2.3. Program Identification.
A program formally enters the program identification phase upon XO approval of the AS recommendation. 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:

- Become involved in the MAJCOM MPP to include mission area plans (MAP), mission area assessments (MAA), mission needs analyses, mission solution analyses, and MNS.
- Develop expertise in theater operations.
- Become involved with exercises, wargames, and experiments.

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

The objective in program identification is not to create a list of programs but to understand what the MAJCOMs and CINCs are doing. Program identification also provides opportunities to interact with the SPO, users, and others, so the AS PM can identify AFOTEC test requirements as early as possible. The advantage is that AFOTEC will have earlier information on CINCs and MAJCOMs requirements for purposes of making involvement decisions and EF development (see chapter 3). Tracking will likely require temporary duty (TDY), and AS will budget for this activity. The Det/ET/ST should request TDY funding from AS. 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. The MIN then becomes the key element for senior decision maker program reviews as described next. AFOTEC members will contact AS when they discover a program with potential for AFOTEC involvement that is not on the MIN. Discovery concludes with the publication of an Involvement Order, a non-involvement letter, or a "Not OT&E" letter.

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

2.5. Involvement Decision.
When sufficient information is gathered through discovery and/or program reviews 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 recommendation will be documented and coordinated in a staff package. The involvement decision can lead to four results: (1) keep in program identification; (2) terminate involvement via a non-involvement memorandum; (3) terminate involvement via a not-OTE memorandum; or (4) publish an Involvement Order establishing a core team for the scope/cost phase. AS will make involvement recommendations and XO is the approval authority. A positive involvement decision will require AS to build the OTPM Involvement Order to Tasking Order network, see paragraph 2.8. Involvement decisions are documented in an Involvement Order and recorded in the MIN. All documentation will be maintained by AS. For NTA involvement decisions, see paragraph 3.6.

2.5.1. 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) Initial TRP for the OT program, 2) test program description, 3) identification of core team members and responsibilities (required core team members include AS, XO, TS, XP, OL-NN (if required), the Det/ET/ST and others as required), 4) scope/cost subprocess activities (identifying timelines, tasks, or products), and 5) a cost estimate to support those activities. A copy of all Involvement Orders will be submitted to AFOTEC/HO.

2.5.2. Non-Involvement Memoranda.
During the determination process, the conclusion may be that OT&E will add no value to the successful fielding of a system. AFOTEC, as the Air Force OTA, is responsible for conducting all Air Force OT&E. Depending on result of the involvement determination, either an Involvement Waiver letter or a Not OT&E letter is drafted, which terminates AFOTEC involvement in the program. AS will coordinate the decision with outside agencies prior to sending either letter.

2.5.3. Involvement Waiver Letter.
If the discovery phase results in a determination that OT&E is required by regulation (i.e., ACAT I and II programs), but it is determined that no value would be added by OT&E conduct, then a non-involvement decision waiver process is initiated. The involvement waiver letter must state that:

- AFOTEC will not conduct OT&E on the [name of system]
- OT&E is not warranted because [state reason]

The AFOTEC waiver letter is signed by the AFOTEC/CV, forwarded to the user and the developer for concurrence, and then to AF/TE for approval.

2.5.4. Not OT&E Letter.
If the discovery phase results in a not-OT&E decision because no OT&E is required (e.g., no milestone decision supported), then a not-OT&E letter is sent which states:

- OT&E is not warranted because [state reason]
- The identity of those developers and users who have agreed with this determination.

The AFOTEC not-OT&E letter is signed by the AFOTEC/XO, sent to the user with courtesy copies to the developer and AF/TE.

2.6. Other Discovery Activities.
Pre-Tasking 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, integrated product teams, and document reviews such as AoA, Mission Needs Statements (MNS), Operational Requirements Documents (ORD), Concept of Operations (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 programmatic documentation is completed (MIN entries/maintenance, HO case files, initial TRPs, etc). AS will transfer programmatics to the detachments as soon as practical through the Tasking Order. Post-Tasking Order, the Det/ET/ST will lead AFOTEC participation in reviews with AS support.

2.7. Initial TRP.
The AFOTEC/AS test resource manager (TRM), as a member of the core team, will initiate the TRP with the assistance of the AS PM. The TRP identifies resources required to support testing, and helps formulate the basis for AFOTEC's budget submissions, manpower requirements and procurement lead times. The initial TRP is a rough order of magnitude estimate only that is useful for AFOTEC budgeting purposes in the near term, and it will evolve into a TRP that has the details on AFOTEC contractor support, range time, flying hours, etc. The AS TRM will coordinate the TRP with external agencies prior to formal AFOTEC approval. Once initiated, the TRP will be updated at least annually, as it affects the POM process. The initial OTPM network for post-Tasking Order activities is developed and used concurrently with the development of the TRP. Once complete, the TRP defines the resources that are used to accomplish tasks in the OTPM test program network.

2.8. OTPM in Discovery.
Once involvement is determined, AS will develop the initial OTPM network along with the Involvement Order. This network defines the nature of tasks required by the core team to successfully move the program from Involvement Order to Tasking Order. The network also defines the time required to accomplish each task, along with personnel requirements (by skill category) needed. The ultimate goal of the network is to ensure that AFOTEC leadership has the information needed to make an informed Tasking Order decision, and ensures that the Tasking Order communicates the necessary guidance and constraints to the Det/ET/ST. AS will ensure the Involvement Order to Tasking Order network is validated and loaded onto the MIN.

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 Detco/ET/ST 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 AFOTECPAM 99-103 for recommended procedures for this process.

CHAPTER 3
Scope/Cost

3.0. Introduction.

This chapter addresses the BMP subprocess of scope/cost for traditional OT programs. XO is the owner of this subprocess. AS executes this subprocess for traditional programs. XO and the owning Det/ET/ST execute this subprocess for NTA programs. For NTA process information, see paragraph 3.6. Figure 2.1 depicts the interrelationship of the scope/cost subprocess with discovery.

3.1. Scope/Cost Defined.

Scope/cost consists of: understanding the system; developing the EF; developing and briefing OT options; test option selection; tasking order development; and tasking order coordination/approval. The purposes of the scope/cost subprocess are: (1) to ensure a standardized scoping 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/ET/ST. 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. AS will lead the core team during the scope/cost subprocess and ensure that it is completed in a timely manner to facilitate transfer of program responsibilities to the Det/ET/ST via the Tasking Order, at the appropriate time. XO will ensure standardization of the process across all OT programs. AS is responsible for drafting, coordinating, and attaining final approval of Tasking Order, which is the output of the scope/cost subprocess. Periodic reviews of a program's scope and cost will continue Post-Tasking Order, as required, to accommodate resource or scope changes throughout AFOTEC's involvement in the program. Post-Tasking Order, the Det/ET/ST will lead program scope and cost review efforts with assistance from AS. If a conflict exists between the Tasking Order and AFOTEC policy, the Tasking Order will take precedence over this or other AFOTEC instructions/policy (the Tasking Order will state the conflict and the rationale for deviation). Insight and tasks as a result of the scope/cost subprocess will be reflected in the OTPM Involvement Order to Tasking Order network.

3.2. Understanding the System.

The AS PM will task the core team through the Involvement Order to research and collect system information from various sources to include MNS, ORD, CONOPS, SPO documentation/discussions, etc. This is accomplished to understand where the system fits into battlespace operations and to understand the system's operational capabilities and limitations. The operational significance of the ORD 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 they have learned will be presented to the other members of the core team at the initial core team meeting. The core team needs to know as much information as available to begin to determine how this new or modified system will fit into the battlespace to support development of a meaningful EF. The components of this framework will be reflected in the OTPM Involvement Order to Tasking Order network and in the test program network.

3.3. Developing the EF.

AFOTEC/ASE is responsible for developing the EF with support from the core team and other subject matter experts as necessary. Development of the EF begins following an involvement decision to publish the Involvement Order and place the program in scope/cost. The EF identifies the linkage between the programs operational requirements (Critical Operational Issues (COIs) and Objectives), and OIA topics enabling a proper balance to be attained. Once the EF has achieved a reasonable level of maturity, ASE will present it to XO/CA-CN for initial review. The purpose of this review is to validate that the team has captured the appropriate evaluation and assessment areas in the EF. This review should take place prior to the core team initiating work on the OT options. The validated EF is attached to the Tasking Order, provides the foundation for development of OT options, supports development of the test concept, and can be used to populate the test plan template.

3.4. OT Options and Costs.

OT options constitute various methodologies or combinations thereof for addressing the OT issues. For example, detection range could be obtained in a Hardware-In-the-Loop facility for one price or done on an open-air range for another cost. The core team, with the assigned Det/ET/ST as the OPR, is responsible for developing a range of options and associated costs for addressing the EF. In order to improve operational realism and take advantage of existing field activities, AFOTEC should, as much as possible, conduct operational tests in conjunction with field exercises. AS, as the POC for exercise activity, will support option development by providing exercise inputs and

initial exercise participation coordination. The software analyst on the core team will conduct a software risk assessment to interpret whether the system includes significant software risk. The results will be used by the core team to determine the possible magnitude for future software evaluations. Software evaluations will only be accomplished to support EOAs, OAs, and TRRs. Software evaluation methods will be approved by CA/CN as recommended by the core team, based on TS input. TS will support options development by providing test capability information including limitations, shortfalls, etc., as well as providing threat information relevant to each test option. The core team will conduct an initial ES&H Review to baseline the program's ES&H risk, limitations, and capabilities. An XO/CA/CN review and approval of options will precede the XO down-select decision. The value of the OT information and costs will be key considerations in the option down-select decision made by XO. The resource requirements for each option must be identified in sufficient detail to support preparation of a TRP. In the event of multiple options and cost presentations to XO, all recommendations and instructions will be recorded by the core team to ensure issue resolution. Once a test option is selected, the core team shall document it in the Tasking Order and use it as the foundation for the test concept briefing, presented to the XO/CA-CN.

3.5. 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 product delivery process. The Tasking Order, as approved by CV, is the product of the scope/cost subprocess steps described above. Preparation of the Tasking Order is the responsibility of AS, supported by the core team, coordinated through the 2-letters identified in the Tasking Order, and will be submitted through XO and CA/CN to CV. The Tasking Order provides programmatic information, EF and objectives, tasking and responsibilities, and resource allocation. The OT Options Decision Briefing and the EF will be included, as a minimum, as annexes to the Tasking Order. The evaluation strategy/TEMP/Single Acquisition Management Plan (SAMP) inputs and the initial TRP should also be included if available. If deviations from the Tasking Order are required, they will be submitted by the core team to XO so that a revised Tasking Order can be prepared and submitted to CV for approval. XO will coordinate with XP if deviations conflict with published policy or procedures. Upon receipt of the Tasking Order, the Det/ET/ST will commence the development of the OTPM test program network (see paragraph 2.8).

3.5.1. Periodic Review of Scope and/or Cost of Programs.

Periodic reviews by XO will occur in March/April and September/October. The March/April review will occur in conjunction with the XO requirements review in support of the AFOTEC budget process. The September/October review to XO will be a less formal review that may be conducted electronically. A briefing may be required if the Det/ET/ST recommends significant changes in scope or cost.

3.5.2. Additional OT Program Reviews.

These reviews will be provided as follows:

- As directed by XO. Requests for Headquarters reviews will be processed through XO and staffed by the CAG
- As directed in the Tasking Order
- Any time a significant change in OT scope or cost increase (as agreed between the Detco/ET/ST and XO) is needed.

Any program changes will be reflected in the OTPM network.

3.6. NTA.

The Det/ET/ST proposing an NTA program drafts an Involvement Order and forwards it to XO for processing. Once XO approves the Involvement Order, the Det/ET/ST proceeds with the scope/cost activities and, working with the client, develops a CRD and a Tasking Order, which is then staffed through the CV.

CHAPTER 4
OT Planning

4.0. 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 flow of steps. 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 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.

4.1. OT Planning Defined.

OT planning consists of: test concept development; test concept briefing; test plan development; test plan coordination/approval; updating the test plan, DTP, DMAP, and TRP; preparing the TRR briefing; conducting certification for readiness for dedicated OT&E, and conducting the TRR. The OTPM test program network will reflect the tasks required for OT planning. The objective of OT planning is to implement the EF and objectives specified in the Tasking Order, and provide sufficient detail to execute the OT. OT planning incorporates analysis and research of non-OT-derived information with results of information obtained through operational test.

4.2. Program Documentation.

4.2.1. Requirements Documentation.

Post-Tasking Order, the Detco/ET/ST will lead and ensure the test team participates in reviews of the AoA, MNS, CRD, ORD, CONOPS, System Threat Assessment Report (STAR), Integrated Logistics Support Plan (ILSP), and Command, Control, Communications, Computers Intelligence Support Plan (C4ISP) (if applicable), for systems requiring OT. Electronic copies of requirement documents need to be loaded on the appropriate documentation page on the MIN. The Detco/ET/ST will ensure that the test team is fully aware of the operating/using command's responsibilities as defined in AFI 10-601, *Mission Needs and Operational Requirements Guidance and Procedures*.

4.2.2. Acquisition Program Documentation.

Before each milestone review, the Detco/ET/ST will review and provide appropriate input to the Program Management Directive (PMD), 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 of the RFP, to ensure it contains any necessary special clauses for executing the OT&E test concept and plan. Section L of the RFP should also be reviewed to ensure test program requirements are properly addressed. 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 requires a combined 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 evaluation strategy, or the initial TEMP part IV and part V can be developed by the core team. The Detco/ET/ST 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 Detco/ET/ST will also ensure an assessment of the linkage between the TEMP and ORD. AFOTEC/CC approves all evaluation strategies/TEMPs/SAMPs, regardless of ACAT.

4.2.3. MIN Certification.

The Detco/ET/ST will ensure that programs on the MIN reflect accurate information. The Detco/ET/ST will ensure that each program has a designated MIN information manager (usually the TM/TD or alternate). The TM/TD 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. Once developed, the OTPM test program network is certified and loaded on the MIN.

4.3. Test Concept Development and Briefing.

The test concept is used to document the XO-approved test approach necessary to assess the operational impact associated with employing the system and evaluate the COIs and major Measures of Effectiveness (MOE) (e.g., those MOEs that rate a Key Performance Parameter). The test concept should identify OT activities as well as required top level resources to execute the concept (i.e., test infrastructure, Modeling and Simulation (M&S) requirements, funding, manpower, AFOTEC contractor support, etc.). The test concept will incorporate testing techniques and methodologies to accomplish these objectives and activities. CA/CN will conduct a review of the test

concept for technical sufficiency and the findings will be incorporated and briefed for XO and CA/CN approval. AFOTEC/CC 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, XO, CA/CN and CV 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 a few days before the scheduled briefing. The test concept briefing guide is contained on the MIN.

4.4. Technical Review Briefing.
Programs will require post-Tasking Order technical review(s) by CA/CN to ensure technical adequacy. The first review occurs after the test concept is approved but prior to the test plan briefing. The time for the technical review will be designated at the test concept briefing by CA/CN. The technical review will be presented to the CA/CN staff by the Det/ET/ST Technical Advisor, supported by the test team as necessary. XO is invited to the technical review briefings and participates as needed. The technical review briefing guide is contained on the MIN. Long duration programs may require multiple technical reviews.

4.5. General OT Planning Considerations.
While AFOTEC must show TEMP and test plan linkage to the ORD, AFOTEC is not restricted to the ORD for determining the scope of the evaluation. The Detco/ET/ST 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. If a program does not have a TEMP, the Detco/ET/ST will define the requirements through the Test and Evaluation IPT, 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. If, in the course of executing the Tasking Order, the Detco/ET/ST determines that required capabilities and characteristics contained in the ORD provide insufficient measures for an adequate OT, the Detco/ET/ST shall propose additional measures through the acquisition IPT process for the operating command. The ORD approval authority shall establish the level of required performance characteristics. If the IPT process is unable to establish the appropriate performance measures, the Detco/ET/ST shall forward the issue through the CAG to the AFOTEC/CC (info CV, XO, AS, and CA/CN) for coordination with the ORD authority. As a minimum, the items in Figure 4.1 will be taken into consideration when accomplishing OT planning.

4.5.1. Test and Evaluation Planning.
The objective of test and evaluation planning is to apply the EF areas specified in the Tasking Order, and to provide sufficient detail to execute the OT. Test and evaluation planning incorporates analysis and research of non-OT-derived information with results of information obtained through 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 Detco/ET/ST will ensure that all pertinent documentation and information related to a specific OT program be included and updated on the AFOTEC MIN. Products of test 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 test planning, test execution, and test reporting.

4.5.2. Early/Operational Assessment (E/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. EOAs or OAs that are limited to document reviews will not normally require a test plan. OAs which involve significant AFOTEC involvement in combined DT/OT or actual AFOTEC-led data collection will normally require a OT plan to define how the data will be collected and analyzed. The core team will provide a recommendation to XO at the OT options briefing identifying whether they believe a test plan is required. If a test plan is required for an OA, the tasking order will identify the requirement for the Det/ET/ST to lead the development of the test plan.

4.5.3. OTPM in PDP.
Test planning includes the development of a test program network. The test program network defines the tasks required to move a program from planning to execution to reporting. The Det/ET/ST will ensure the network is built when it is evident that the Tasking Order will be published, the test concept is clear, and the Analytical Support Plan

is defined adequately. This network defines the nature of tasks required by the Det/ET/ST to successfully move the program from planning to execution to reporting to closeout, as well as time required to accomplish these tasks and the number of personnel (by skill category) needed. The ultimate goal of the network is to ensure that AFOTEC meets the required delivery date for the information or product required by the customers. The test program network provides high-level insight to AFOTEC leadership regarding the status of the program.

- Threat or threat-representative forces, targets, and threat countermeasures, validated in coordination with Defense Intelligence Agency (DIA), shall be used.
- Use production/production-representative articles for the dedicated phase of OT&E supporting the full-rate production and/or deployment decision.
- Take maximum advantage of training or exercise activities to increase the realism and scope of operational testing and to reduce testing costs.
- Use a combined DT/OT approach and combined test force (CTF) to the maximum extent possible.
- 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.
- Use Reliability, Availability, and Maintainability (RAM) definitions contained in Policy Letter 99-05 (located on the MIN under the Policy Tab).
- Use M&S when appropriate for planning and data evaluation to augment, extend, or enhance field test results.
- Develop accreditation plans and reports for all test processes that involve the use of models (or simulations). Guidance is in AFOTECPAM 99-103, chapter 4.
- Plan to evaluate nuclear survivability requirements from the ORD. Plan on combined DT/OT events, funded by the Program Office.
- Typical users shall operate and maintain the system or item under conditions simulating combat stress and peacetime conditions using the CONOPS and Maintenance Concept.
- Ensure adequate guidance and training is provided regarding system contractor involvement.
- Determine if the minimum acceptable operational performance and suitability requirements as specified in the ORD have been addressed.
- Identify environmental, safety and health issues, risks to system design and testing, and recommend corrective actions to reduce those risks to acceptable levels.
- Determine if there are any significant weather/space environment impacts which will affect system operational effectiveness.
- Determine complexity, maturity, operational flexibility, and significance of the system software.
- Reduce test constraints and limitations to the minimum feasible. Elevate issues if necessary to preclude unnecessary risk.
- Involve Joint Interoperability Test Command (JITC), for certification for compatibility, interoperability, and integration.
- Ensure applicable emphasis items located on the AFOTEC T&E Policy Tab on the MIN.

Figure 4.1. Planning Considerations

4.5.4. OT Plan.

The OT plan will provide sufficient detail to identify data and resource requirements to support the assessment/evaluation. It will describe operational issues, test limitations, safety and security issues, specific test events, scenarios, schedule, measures, data collection ("who, when, and how"), reduction, and analysis. It will show linkages between data to be collected, information to be obtained, and conclusions needed to support 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.

4.5.5. Reliability, Availability, and Maintainability (RAM) Requirements.

The Detco/ET/ST 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 in 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.

4.5.6. Environmental, Safety and Health (ES&H) Reviews.
These reviews ensure that ES&H issues are addressed, mitigated, and closed out prior to dedicated OT&E. Some programs may require multiple reviews. The Detco/ET/ST will ensure ES&H reviews are conducted on all OT plans and mission scenarios, and coordinated with SE. The TM/TD will schedule a final ES&H review 4 weeks prior to TRR (as early as possible for NTAs). This review is the Environment, Safety, and Health Certification Board, which produces the safety and environmental certifications for TRR.

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

- Each Detco/ET/ST 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 pre-dedicated phase of OT&E for subsequent use in a dedicated OT&E. Additionally, test data shall be tagged as to whether it came from contractor, developmental, combined 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. AFOTEC/XOT will provide appropriate training support for this requirement.
- Each Detco/ET/ST (through the test team) is responsible for including appropriate information in the program's TEMP, OT&E test plan, and final report on system contractor involvement (to include procedures taken to mitigate the concern of contractor involvement). Further, the Detco/ET/ST is responsible for ensuring that all data subsequently used for OT&E reporting are valid and credible. If there is a question/concern about data validity, contact the AFOTEC Legal Counsel (LC), or do not use the data to support the OT&E results.

4.5.8. Last Test Event (LTE).
The LTE is used by AFOTEC to ensure timeliness of the final report (see chapter 6). The Detco/ET/ST 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/ET/ST and then annotated on the MIN. The LTE will be input into the OTPM test program network. If an ISR will be accomplished, the final report coordination schedule (figures 6.1 and 6.2) may be modified upon Detco/ET/ST request and XO approval. The Det/ET/ST 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 AFOTEC/CC.

4.5.9. Test Team Structure.
Test teams may consist entirely of AFOTEC personnel or may be augmented by a MAJCOM. The Detco/ET/ST will ensure, whenever possible, that AFOTEC personnel are in the key management positions. The following are typical positions: TM/TD, deputies for operations, analysis, logistics, and software evaluation**.** Recommended functional areas of expertise to supplement the test team are shown in figure 4.2.

Test Management/Execution (Det/ET/ST)	RAM Analysts (TS)
Final Report (Det(/ET/ST)/XO/AS/CA-CN/RM/TS/XP)	Software Analysts (TS)
Test Support (TS-assigned Lead Analyst)	Modeling/Simulation (TS)
OT Technical Advice (CA/CN/Det)	Nuclear Effects/Survivability (TS)
Mission/Operations (AS/Det(/ET/ST))	Foreign Military Programs (TS)
Operational Effectiveness (Det(/ET/ST)/XO/AS/TS/CA-CN)	Training (XOT)
Operational Suitability (Det(/ET/ST)/XO/AS/TS/CA-CN)	Resource Management/Contracting (RM)
Ranges/Facilities (TS, OL-NN)	Security (SF)
NTTR infrastructure improvement and instrumentation (XP)	Environmental Management (SE)
OT EF Development (XO/AS/TS Det(/ET/ST)/CA-CN)	Safety (SE)
Personnel/Manpower (DP)	Weather and Space Environment Analysts (TS)
Threat Definition/Intelligence (TS)	Legal (LC)
Policy and Procedures/Product Evaluation (XP)	Special Access Programs (ST)
Human Factors (TS)	History and Research (HO)

Figure 4.2. Functional Areas of Expertise

4.5.10. Test Team Training.
Before initiating the test, all OT&E members and support personnel, including the TM/TD will be trained on the general principles and policies of testing, and on the test program itself commensurate with each team member's

responsibilities. AFOTEC/XOT is the AFOTEC OT&E training focal point, and conducts a variety of training courses that cover a portion of the training required by test team members.

4.5.11. Support Agreements.
Support agreements document recurring support requirements to another DoD or non-DoD Federal activity. The Detco/ET/ST will ensure appropriate Memoranda of Agreement/Understanding (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). Support agreements will be signed by the CV or a designated representative. Copies of all approved MOAs/MOUs/HTSAs will be forwarded to HO.

4.5.12. TRP.
The Detco/ET/ST will ensure that the numbers, skills, and reporting dates of test team members included in the TRP continue to meet POM input requirements. The TRP must identify AFOTEC contractor support requirements, in addition to listing resources outside agencies have agreed to provide (i.e., flying hours, equipment, range time, etc.). The Detco/ET/ST will coordinate with AFOTEC/RM throughout the test planning phase to execute the approved test budget. Any real or anticipated changes to the test budget will be coordinated with AFOTEC/XO and formally documented in the test program records/file. Any changes to unit manning allocations must be coordinated with HQ AFOTEC/XO/DP and approved by CV.

4.6. Coordination of OT Plans.

4.6.1. Internal-AFOTEC Coordination of OT Plans.
Coordination requirements, timelines and required OPRs for all OT plans are shown at Figure 4.3. Any changes to the coordination requirements will be documented in the Tasking Order. AFOTEC/CC is the approval authority for test plans unless otherwise specified in the Tasking Order. The Detco/ET/ST will coordinate on the OT plan, then forward the document to the CAG for headquarters staffing. The test plan distribution list will include four paper copies and one electronic copy (portable document format, or pdf) of all approved test plans to AFOTEC/HO. If a briefing to the CC is required, follow paragraph 1.5.9 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 on the MIN homepage under the Templates tab.

4.6.2. External-AFOTEC Coordination/Distribution of OT Plans.
The designated OT plan approval authority must approve all final OT plans 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. Figure 4.3 summarizes the briefing and plan-approval schedule for all OT plans (unless otherwise directed in the Tasking Order), to include required briefings/delivery dates for programs on the DOT&E-oversight list.

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

4.6.4. 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 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 Policy tab.

4.6.5. 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 AFOTEC/CC or as designated. The decision whether or not to have an independent OT plan will be documented in the Tasking Order. Appropriate information from AFOTEC's OT plan will be included in the lead service OT plan.

ACTION	OUTCOME	TIMING TO COMPLETE (No-later-than date)
Det/ET/ST TA submit draft OT plan to CAG (CCX)	CAG Staffs to XP/TS/AS concurrently, then XO, CA/CN, and CV sequentially, prior to CC approval	Prior to external presentation
TM/TD brief/coordinate with AFOTEC/CC or designated representative on draft OT concept/plan	Approval of concept/plan by AFOTEC/CC or designated representative	Prior to external presentation
TM/TD brief draft OT concept/plan to SPO, AF/TE, and DOT&E as required	Information provided to external agencies	Normally, 1 year before Test Start
TM/TD brief AFOTEC/CC or designated representative and HQ Staff (CV, XO, CA/CN, AS/XP/TS) on the OT plan	Approval of plan by AFOTEC/CC or designated representative	Prior to external presentation
TM/TD brief the OT plan to AF/TE, then DOT&E	DOT&E review	120 Days before test start
TM/TD submit AFOTEC-approved OT plan to Program Executive Officer (PEO)/ Designated Acquisition Commander (DAC) and SPO	PEO/DAC information	90 Days before test start
TM/TD submit approved OT plan to AF/TE (brief, as required)	AF/TE review/coordinate	75 Days before test start
TM/TD submits approved OT plan to DOT&E (brief, as required)	DOT&E approval	60 Days before test start
TM/TD conducts TRR and Certification Briefing	Approval of readiness by AFOTEC/CC or designated representative	30 Days before test start

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

Figure 4.3. OT Plan Approval Cycle

4.7. Preparation for Certification of System Readiness for OT&E.

Certification requires the developer to demonstrate stabilized performance under an operational (stressed) environment with a production representative article. The Detco/ET/ST will ensure that realistic risk assessments are routinely accomplished throughout the development process for all acquisition programs, regardless of the ACAT (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/ET/ST 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 Detco/ET/ST will ensure appropriate AFOTEC influence for satisfactory completion of DT responsibilities prescribed by DoD 5000.2 and AFI 99-101, *Developmental Test and Evaluation*. For multiservice OT&E programs where the AF is not the lead service, AFOTEC will use the guidance provided by the lead service.

4.7.1. 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 Detco/ET/ST will elevate compliance problems through the CAG to XO, CV, and CC as appropriate, as early as possible to resolve OT&E issues.

4.7.2. Acceptance or Non Acceptance Letter Contents.

In drafting the acceptance/non-acceptance letter, the Detco/ET/ST 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 which 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).

4.8. Preparation for TRR.

The Detco/ET/ST will ensure a TRR is prepared and presented prior to dedicated 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/ET/ST will recommend to XO whether a TRR is required. 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. XO will determine whether a TRR will be conducted, and document this decision during the test plan review. The TRR briefing guide is on the MIN.

CHAPTER 5
OT Execution

5.0. 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. Dedicated 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.

5.1. Final Preparation Prior to Test.
Before beginning the actual execution of the test, the Detco/ET/ST will ensure that the system and test team are fully ready to safely and effectively conduct the test. The Detco/ET/ST is responsible for ensuring the establishment and implementation of detailed guidelines which clarify the roles, responsibilities, and rules of conduct that test participants and observers must follow during test execution. The Detco/ET/ST will ensure compliance with this instruction and the provisions in AFI 99-102, chapter 7, "Conducting and Analyzing Tests". The Detco/ET/ST 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. AFOTEC/XOT supports this requirement through its test team training course. If more than one test location is used for a test mission, the Detco/ET/ST should ensure that a designated responsible AFOTEC representative is present at each location.

5.2. Resource Management.
The Detco/ET/ST will ensure coordination with AFOTEC/RM throughout the execution phase to execute the approved test budget. Any real or anticipated changes to the test budget will be coordinated with AFOTEC/XO and formally documented in the test program case files/MIN.

5.3. Test Execution.
The Detco/ET/ST will ensure execution of the OT in compliance with the OT plan.

5.3.1. Combined Developmental Testing/Operational Testing (DT/OT).
Combined 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 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 combined 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 combined testing objective is to structure the subsequent dedicated OT&E so that it will reinforce the information gained in the combined DT/OT phase, and lessen the time spent in dedicated OT&E. In addition, combined DT/OT is the proper way to evaluate nuclear survivability requirements.

5.3.2. Dedicated OT&E.
Dedicated OT&E is required by United States Code Title 10 for all major programs (usually associated with a dollar figure, see DoD 5000.2-R, chapter 1) that are designed for use in combat. The primary purpose of dedicated OT&E is to conduct an <u>independent</u> (from both the developer and user) evaluation of the system's operational effectiveness and suitability. For all other programs, OT&E (dedicated or not) is not required (per AFI 99-102), but strongly recommended.

5.4. Required Reports While in Execution.
The Detco/ET/ST is responsible for ensuring that all reports while in execution (e.g., MIN Ops Center, activity, status, significant test events, annual, and interim summary) are timely, factual, concise, complete, accurate, and balanced. AFOTECPAM 99-103, chapter 5, contains additional information on the types of reports that may be used in an OT program.

5.5. Test Data Sharing with Outside Organizations.
Cooperation is important with the SPO, other testers, and contractors during DT, DT/OT, and dedicated 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 Detco/ET/ST 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 AFOTEC/HO with information copy to AFOTEC/RMR. See the Test Data Sharing section in AFOTECPAM 99-103, chapter 5, for additional information.

5.6. Deficiency Reporting.
The Detco/ET/ST will ensure test teams participate in the deficiency reporting process for their program IAW TO 00-35D-54, *USAF Deficiency Reporting and Investigating System.*

5.7. 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 TM/TD and the Detco/ET/ST. 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 brought to the attention of the AFOTEC senior staff as soon as practical, but no later than 24 hours past the stoppage.

5.7.1. 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 Detco/ET/ST may want to consider a formal "Stop Test."

5.7.2. Restarting.
Following the decision to pause the OT&E, the Detco/ET/ST 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/ET/ST requires one. However, the Detco/ET/ST 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.

5.8. 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 AFOTEC Commander 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 Detco/ET/ST 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, testing will be paused during stop test/decertification discussions. In addition, there needs to be an on-going dialog between the acquisition leadership (PEO, Program Office) and the Test Team/Det senior leadership prior to the "stop test" declaration. If the OT&E is a MOT&E, and AFOTEC is the lead OTA, the other OTA(s) need to be included in the discussion leading up to the "stop test" declaration for the operational testing.

5.8.1. Stop Test/Decertification Message.
Once a decision to stop the operational test has been made by the AFOTEC Commander, the Detco/ET/ST will ensure a "stop test - decertification" message is prepared. In the message, the AFOTEC Commander will decertify the system and return the system to the Program Office for appropriate corrective action. The decertification must explain clearly 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 Commander approves the message, it is sent to SAF/AQ, AF/TE, the PEO, DAC, SPO PM, HQ AFMC/DO, and the user(s).

5.8.2. 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. All AFMAN 63-119 templates should be revisited and modified, 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.

5.8.3. 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.

5.9. JRMET-TDSB.
The Detco/ET/ST will ensure test team participation in the JRMET and TDSB while in OT execution. The TM/TD or designated representative will chair the TDSB while in dedicated OT&E.

CHAPTER 6
OT Reporting

6.0. Introduction.

The Detco/ET/ST will ensure compliance with the AFOTEC Tasking Orders, and the provisions in AFI 99-102, chapter 8, "Test and Evaluation 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 (see Template tab on MIN homepage) in addressing operational effectiveness/suitability and OIA. NTA programs are authorized to use a client-approved format and approval process.

6.1. OT Reporting Considerations.

The Detco/ET/ST is responsible for implementing a responsive OT reporting strategy and schedule.

- All OT&E reports will be provided to the CSAF and the program milestone decision authority (MDA). A report (Interim Summary Report (ISR) or Final Report) for all ACAT I, ACAT IAM, and other OSD T&E oversight list programs will be provided to DOT&E (via AF/TE) at least 45 days prior to the associated milestone or fielding decision.
- 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.
- For all OT, each Detco/ET/ST (through the test team) is responsible for including appropriate information on system contractor involvement (to include procedures taken to mitigate contractor influence on test procedures). Further, the Detco/ET/ST is responsible for ensuring that all data subsequently used for OT&E reporting are valid and credible.

6.2. OT Ratings.

When reporting a system's operational effectiveness and suitability for all OT&E (all ACATs), the ratings will be limited to the following terms:

- Effectiveness will be rated as "effective," "potentially effective," or "not effective."
- Suitability will be rated as "suitable," "potentially suitable," or "not suitable."

The term "potentially" may be used even though the evaluation criteria were not met if, in the test team's judgement, 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 ORD 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 ORD 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. 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" or "effective/suitable with qualifications." The qualifier should describe whether or not the system is progressing satisfactorily towards operational effectiveness/suitability.

6.2.1. COI/Objective/MOE/Measure of Performance(MOP) Ratings.

For I/Q/FOT&E:

- COIs will be rated based on the adequacy of, and the performance exhibited by, the collected data. Each COI will be reported as "Satisfactory," "Unsatisfactory," or "Not Resolved."
- Objectives will not be rated. Use a narrative format to report whether of not the objective was achieved during the test.
- MOEs/MOPs will be rated as follows:
  - "Met Criteria" describes performance that met or exceeded a stated OT&E criterion or the stated aggregation outcome.
  - "Did Not Meet Criteria" describes performance that did not meet an OT&E criterion or the stated aggregation outcome.
  - "Not Tested" will be used when performance has not been tested.
  - "Inconclusive" will be used when performance has been tested, data are gathered, but the data and analysis do not support making a "met" or "did not meet" rating.

- "No User Established Criteria, Report Only" will be used when the user has not provided or agreed to a criteria for a specific measure that AFOTEC deems necessary to test. The results from this area will be given in a narrative statement. (e.g., average completion time, distribution of questionnaire ratings, or other summary statistics).

For E/OA and OUEs (typically), COIs, MOEs, and MOPs will all be rated 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.

6.2.2. OIA Assessment.
OIA will be grouped by "Assessment Areas," "Objectives," and "Topics." These items will provide information on employing the system within the battlespace, and be assessed rather than rated. See AFOTECPAM 99-103, chapter 4, and the Single Report Template (on the MIN) for further information.

6.2.3. 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?"

6.3. Prepare and Release ISR.
A formal briefing and/or ISR may be accomplished in addition to the final report if required to support a timely decision. The Detco/ET/ST will ensure an ISR is published 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 AFOTEC/CC within seven calendar days of test completion. The Detco/ET/ST 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 and distributed IAW AFOTECI 61-204, *Disseminating Scientific and Technical Information*. OTPM test program networks will reflect the requirement to coordinate and publish the ISR, if applicable.

6.4. Prepare and Publish Final Report.
The Det/ET/ST prepares the report and sends it to the CAG for coordination. During coordination, the CAG assigns and tracks report suspenses, while the Det/ET/ST resolves comments and prepares the final draft package for command section review. All final reports are approved and released by the AFOTEC/CC (unless otherwise directed) and should be written from that perspective. Coordinate with the CAG all draft briefings being presented to the CC. An electronic copy of the approved briefing will be maintained on the MIN. Briefings should be in the approved AFOTEC briefing format found on the MIN. The final reports will be prepared following guidance in the Tasking Order and the Single Report Template (found on the MIN under the Templates tab). Attachments generated by AFOTEC will not contain conclusions or recommendations about the system under test. Four paper copies and one electronic copy (pdf format) of all approved final reports must be provided to AFOTEC/HO.

6.4.1. Coordination of Final Reports.
Figures 6.1 and 6.2 depict schedules leading to completion of the final report for all OT&E (Figure 6.2 is for MOT&E reports). If an ISR will be accomplished, the final report coordination schedule may be modified upon Detco/ET/ST request and XO approval. The TM/TD/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 ISR is signed by the AFOTEC/CC. The final report will follow all provisions of the Single Report format, found on the MIN homepage under the Templates tab. Reports will be marked and distributed IAW AFOTECI 61-204, *Disseminating Scientific and Technical Information*.

ITEM	ACTION
Projected dates	OPR provides two dates – projected LTE and known Full-Rate Production (FRP) decision, fielding decision, or IOC. Submit to CAG corporate account and update MIN (due when known).
LTE + 10 days	OPR submits final test report to CAG, along with draft closeout order.
LTE + 11 days	CAG sends out final test report for internal review/coordination (XP, TS, AS, XO, CA/CN).
LTE + 14 days	Comments by reviewers (XP, TS, AS, XO, and CA/CN) are returned to the OPR (with an info copy sent to the CAG).
LTE + 23 days	OPR submits final test report to the CAG to begin final coordination.
LTE + 24 days	Final test report is sent to XO (include comment resolution matrix).
LTE + 28 days	If final test report is ready, XO forwards for CA-CN/CV/CC coordination. If final test report has problems, then XO will contact the OPR for resolution. Final report brief to XO.
LTE + 31 days	OPR resolves final report issues with XO (if required).
LTE + 33 days	Submit final report briefing read-ahead to CAG, XO, CA/CN, CV, CC.
LTE + 35 days	Coordinate final report through CAG, XO, CA/CN, CV
LTE + 36 days	Present final report briefing to CC (invite CV, XO, CA/CN, AS, TS, and XP). CC signs final report or sends back for revision.
Signature + 5 days	Approved final report made ready and distributed.

Figure 6.1. Report Approval Cycle for AFOTEC Tests

ITEM	ACTION
Projected dates	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 + 10 days	OPR submits final test report to CAG, along with draft closeout order.
LTE + 11 days	CAG sends out the final test report for internal review/coordination (XP, TS, AS, XO, and CA/CN).
LTE + 14 days	Comments by reviewers (XP, TS, AS, XO, and CA/CN) are returned to the OPR (with an info copy sent to the CAG).
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 to the CAG to begin final coordination.
LTE + 52 days	Final test report is sent to XO (include comment resolution matrix).
LTE + 56 days	If final test report is ready, XO forwards for CA-CN/CV/CC coordination. If final test report has problems, then XO will contact the OPR for resolution.
LTE + 59 days	OPR resolves final report issues with XO (if required).
LTE + 61 days	Submit final report briefing read-ahead to CAG, XO, CA/CN, CV, CC.
LTE + 63 days	Coordinate final report briefing through CAG, XO, CA/CN, CV.
LTE + 64 days	Present final report briefing to CC (invite CV, XO, CA/CN, AS, TS, and XP). CC signs final report or sends back for revision.
Signature + 5 days	Approved final report made ready and distributed.

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

6.4.2. Report Supplements.
The Detco/ET/ST 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 Detco/ET/ST will ensure coordination and approval of supplements is accomplished at the same level as the original report.

6.4.3. Final Report Publication and Distribution.
AFOTEC/RM will ensure standardization for publication and distribution. The CAG will forward the final report (with signature) to RMSC 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.

6.5. Final Report Briefing.
The Detco/ET/ST will ensure the final report briefing is prepared and presented to the Commander prior to final report or ISR approval IAW paragraph 1.5.9. An electronic copy of the approved briefing will be maintained on the MIN. An abbreviated version of this briefing will be prepared for external customers. See Templates tab on the MIN for the final report briefing template.

6.6. 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 Figure 6.1 or 6.2 (as appropriate), and approved by the AFOTEC Commander before they are presented to AF/TE or DOT&E. Approval of the final report itself is not required by the AFOTEC/CC before briefing AF/TE or DOT&E. When report briefings are required/requested, the Detco/ET/ST will provide a draft release message (either message, email, or fax format) for AFOTEC/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 a multi-service OT&E will be responsible for preparing all required OSD briefings. The Det/ET/ST will coordinate these briefings with all participating OTAs, as outlined in the test program MOA.

6.7. 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

7.0. OT Closeout.

XO is the owner of the OT closeout subprocess. The Det/ET/ST accomplishes the required documentation to confirm closeout. There are two types of OT closeouts: OT Activity Closeout and OT Program Closeout.

7.1. OT Activity Closeout.

OT Activity Closeout is used for completion of OT activities within a program. OT Activity Closeout begins with the signing of the final report and ends with Detco/ET/ST confirming completion of closeout. The Activity information will be archived on the MIN after closeout.

7.2. OT Program Closeout.

Program Closeout formally closes out a program. Program Closeout begins with a Closeout Order issued by CV and ends with a Detco/ET/ST letter confirming completion of closeout. See the Templates tab on the MIN. This is separate and apart from ultimate financial closeout. Confirmation of accomplished items contained in the Closeout Order ends AFOTEC involvement in a program (which may take place prior to program completion due to resource constraints). Closeout will normally involve the archival of documentation IAW AFOTECI 84-101 and RM notification concerning the allocation of funds. As part of Program Closeout activity, the Operating Location may be closed out after the last OT activity is completed. See AFOTECPAM 99-103, chapter 4 on activating/deactivating subordinate units. Listed below are actions to be accomplished for OT Program Closeout:

- All personnel actions are completed IAW AFOTEC/DP directives.
- Equipment and resources are turned in for use on other tests.
- Hazardous materials are disposed of IAW the applicable federal law and Air Force regulations.
- Disposition of data and document files are properly completed. Key documents should be added as required to the OT&E project case file, including emails documenting AFOTEC business activity/testing decisions, as well as memorandums for record for Det/ET/ST approval of test data/results release.. Duplicates, drafts, superseded documents, routine administrative papers, and raw data should be purged prior to transfer to AFOTEC/HO. Forward visual information products (i.e., videos, slides, photos) to AFOTEC/HOM (USAF OT&E Historical Multimedia Documentation Division). Refer to AFOTECI 84-101 for detailed information. Also, refer to AFMAN 37-139, *Records Disposition Schedule*, table 6-5, when destroying material or retiring material to staging areas. Finally, test team analysts should coordinate with appropriate offices in AFOTEC/TS regarding what data will be destroyed.
- Complete test team deactivation procedures found in AFOTECPAM 99-103.
- Funding documents are closed out and suballocations are withdrawn with support from AFOTEC/RM.
- Test asset accountability documents for key resources (e.g., personnel, aircraft and flying hours/sorties, test range hours, missiles/munitions/targets) are provided to AFOTEC/RMRQ for future test resource estimations and inquiries.
- OTPM test program networks will include the standard OT program closeout tasks.
- All open deficiency reports and watch item tracking (WIT) must be turned over to the using or developing commands as appropriate for tracking and prioritization.

For Det 1 programs which have an Involvement Order but have not evolved into a Tasking Order, these may be closed out with a letter instead of a Closeout Order. The letter is sent from Det 1Commander directly to XO and serves the purpose to remove program information from the MIN and close out funding issues through AFOTEC/RM.

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ATTACHMENT 1
Abbreviations and Acronyms

ACAT	Acquisition Category
ACTD	Advanced Concept Technology Demonstration
AFI	Air Force Instruction
AFMAN	Air Force Manual
AFMC	Air Force Materiel Command
AFMD	Air Force Mission Directive
AFOTEC	Air Force Operational Test and Evaluation Center
AFOTECI	Air Force Operational Test and Evaluation Center Instruction
AFOTECM	Air Force Operational Test and Evaluation Center Manual
AFOTECPAM	Air Force Operational Test and Evaluation Center Pamphlet
AFPD	Air Force Policy Directive
AF/TE	Air Force Test and Evaluation
AoA	Analysis of Alternatives
BI	Battlelab Initiative
BMP	Business Management Process
C4ISP	Command, Control, Communications, Computers, Intelligence Support Plan
CANDI	Commercial and Non-developmental Item
CAG	Commander's Action Group
CINC	Commander(s)-in-Chief
COI	Critical Operational Issue
CONOPS	Concept of Operations
COTR	Contracting Officer Technical Representative
COTS	Commercial Off-the-Shelf
CRD	Client Requirements Document
CSAF	Chief of Staff of the Air 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
DR	Deficiency Report, Reporting
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
ET	Evaluation Team
FAX	Facsimile
FDE	Force Development Evaluation
FOT&E	Follow-on Operational Test and Evaluation
HHQ	Higher Headquarters
HQ	Headquarters
HTSA	Host-Tenant Support Agreement

IOC	Initial Operational Capability
IOT&E	Initial Operational Test and Evaluation
IPT	Integrated Product Team
JITC	Joint Interoperability Test Command
JRMET	Joint Reliability and Maintainability Evaluation Team
JT&E	Joint Test and Evaluation
LRIP	Low Rate Initial Production
LTE	Last Test Event
MAA	Mission Area Assessment
MAIS	Major Automated Information System
MAJCOM	Major Command
MAP	Mission Area Plan
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MIN	Management Information Network
MNS	Mission Need Statement
MOA	Memorandum of Agreement
MOE	Measure of Effectiveness
MOP	Measure of Performance
MOT&E	Multiservice Operational Test and Evaluation
MOU	Memorandum of Understanding
MPP	Modernization Planning Process
M&S	Modeling and Simulation
NTA	Nontraditional Assessment
OA	Operational Assessment
OCR	Office of Collateral Responsibility
OIA	Operational Impact Assessment
OL	Operating Location
OPR	Office of Primary Responsibility
ORD	Operational Requirements Document
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
PID	Program Introduction Document
PM	Program Manager
PEP	Product Evaluation Program
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
RTO	Responsible Test Organization
SAF	Secretary of the Air Force
SAMP	Single Acquisition Management Plan
SPO	System Program Office
STAR	System Threat Assessment Report
TDSB	Test Data Scoring Board
TDY	Temporary Duty
TEMP	Test and Evaluation Master Plan
TM/TD	Test Manager/Test Director
TO	Technical Order
TRP	Test Resource Plan
TRR	Test Readiness Review
VV&A	Verification, Validation and Accreditation