



# JOINT TEST AND EVALUATION PROGRAM HANDBOOK

REVISION 1

June 29, 2007



A handwritten signature in black ink, reading "J.H. Thompson".

J.H. Thompson  
Program Manager  
Joint Test and Evaluation

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## FOREWORD

The Joint Test and Evaluation (JT&E) Program objective is to find ways for warfighters to do their jobs better with today's equipment, organization, and doctrine. This objective is achieved after successfully evaluating new concepts and addressing needs and issues that occur in joint military environments. The program includes the nomination process; the joint feasibility study process, which determines whether selected nominations are operationally needed and technically feasible; and, when making such a determination, the execution of a JT&E project chartered by the Director, Operational Test and Evaluation. The process and procedures for nominating and conducting a quick reaction test are also included.

Department of Defense Directive (DOD Directive) 5010.41, "Joint Test and Evaluation (JT&E) Program," describes the JT&E Program purpose, identifies the principal participants and their responsibilities, and outlines the framework within which each Service supports the program. Service support is described in detail in applicable Service directives.

This handbook and the separately published JT&E Style Guide replace all previously issued handbooks, policies, and standing operating procedures. This handbook provides the JT&E business model and Office of the Secretary of Defense (OSD) guidance, policies, and direction, as well as general JT&E information, references, and procedures to the Joint Test Director, Services, combatant commands, defense agencies, the Joint Staff, and OSD Staff relative to the execution of a JT&E project.

The proponent of this handbook is the Deputy Director, Air Warfare. This handbook will be reviewed and revised, as necessary, to accommodate and address the changing challenges of joint military environments associated with the Global War on Terror. At a minimum, however, this handbook will be updated no less than once per year. Recommended changes or suggestions for additions should be forwarded to the JT&E Program Office at the following address using the handbook change form:

Joint Test and Evaluation Program Office  
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4850 Mark Center Drive, 10th Floor  
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## HANDBOOK CHANGE FORM INFORMATION

Please use this form to submit **technical changes** to the Joint Test and Evaluation (JT&E) Program Handbook and JT&E Program Style Guide. If the requested change(s) is administrative in nature, please contact the JT&E Program Office (JPO) technical editor at 703-681-5412.

Please fill out the form in its entirety (except JPO response fields). A technical change will not be considered without rationale and a Test Director's or other authorizing command's signature. After completing the form, please e-mail the form to [jpo@osd.mil](mailto:jpo@osd.mil), fax the form to the JPO at 703-681-1433, or send the form by mail to:

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This handbook will be revised on an annual basis. If the requested change(s) is approved, it will be included in the subsequent revision. If you have questions regarding this form, please contact the JPO or call the JPO technical editor at 703-681-5412.

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## CHAPTER 1 JOINT TEST AND EVALUATION PROGRAM OVERVIEW

### 1.0 Introduction

The Department of Defense (DOD) Joint Test and Evaluation (JT&E) Program originated in response to the 1970 Blue Ribbon Defense Panel Report, which concluded that continuing responsibility for joint testing be vested in an Office of the Secretary of Defense (OSD) staff element dedicated to test and evaluation (T&E). In December 2002 the Director, Operational Test and Evaluation (DOT&E) assigned responsibility for the JT&E Program to the Deputy Director, Air Warfare (DD,AW). DD,AW directs the JT&E Program and develops the means to ensure that productive T&E is accomplished. The JT&E Program Manager (PM) reports to DD,AW and is responsible for the day-to-day execution of the program.

The overarching policies and details of the JT&E Program are set forth in DOD Directive (DODD) 5010.41. DOT&E is the primary source of JT&E Program funding, which provides independent status for the JT&E Program in order to minimize the influence of Service specific objectives.

DD,AW assigns responsibility for conducting each JT&E project to a lead Service, combatant command (COCOM), and/or other DOD agency. This agency is responsible for providing personnel, facilities, and administrative support to establish and execute the project. DD,AW also expects personnel and resources from other Services to support the project. The JT&E Program Office (JPO) provides funds for contractor support and direct test costs.

### 1.1 Purpose

The JT&E Program brings two or more of the Services together to accomplish the following objectives:

- Assess Service interoperability in joint operations and explore potential solutions to identified problems.
- Evaluate joint technical and operational concepts, and recommend improvements.
- Increase joint mission capability using quantitative data for analysis.
- Improve modeling and simulation validity with field exercise data.
- Provide feedback to the acquisition and joint operations communities.
- Improve tactics, techniques, and procedures (TTP).
- Validate operational testing methodologies that have joint applications.

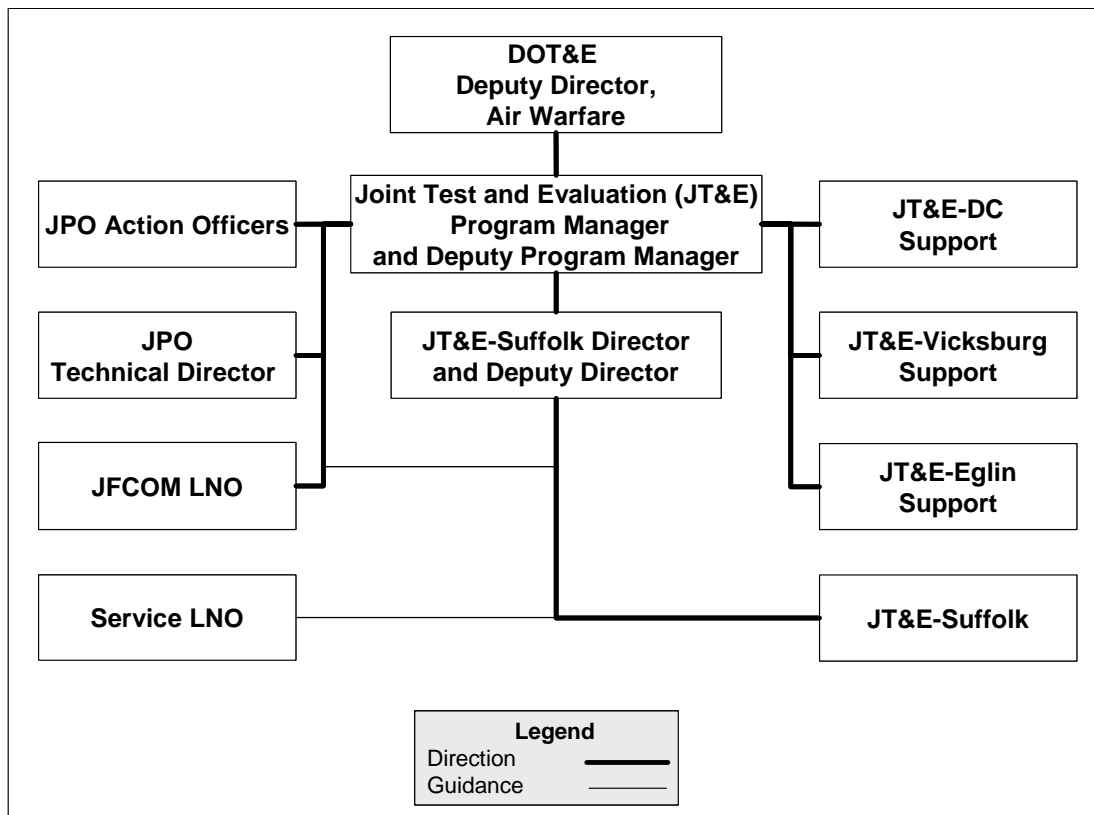
### 1.2 The JT&E Program

The JT&E Program is composed of three separate, but closely related projects:

- Joint Feasibility Study (JFS). A seven-month study to determine the need and feasibility of a proposed joint test.
- Joint Test (JT). A test, up to three years in duration, whose results have the potential for significant improvements in joint capabilities.
- Quick Reaction Test (QRT). A short duration test, normally less than 12 months, designed to expedite solutions to emergent joint operational problems.

### 1.2.1 The JT&E Program Office

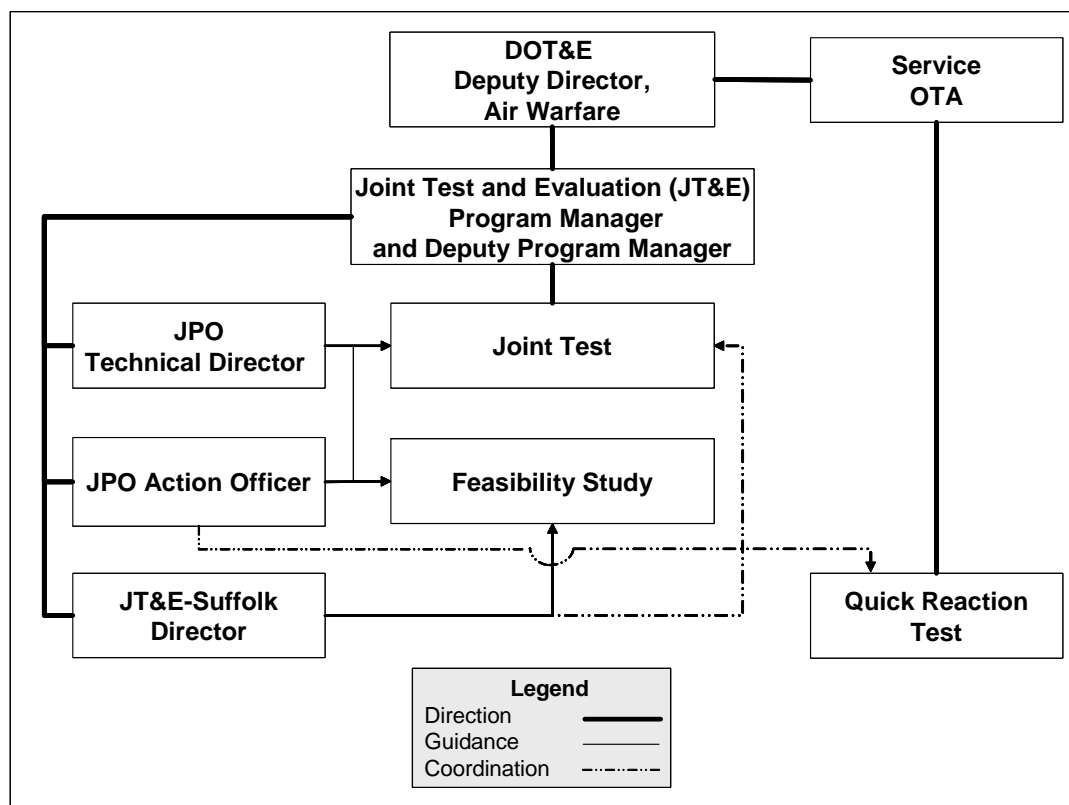
The JPO provides overall management and guidance for execution of the JT&E Program. The JT&E PM directs the JPO supported by a Deputy PM, Technical Directors (TD), Action Officers (AO), United States Joint Forces Command (USJFCOM) liaison officers (LNOs), the JT&E-Suffolk facility, which includes the Joint Test Support Cell (JTSC) personnel, and administrative staff located in Washington, DC; Vicksburg, MS; and Eglin Air Force Base, FL. Figure 1-1 depicts the JPO's organization.



**Figure 1-1. Joint Test and Evaluation Program Office Organization**

Management of the JT&E Program includes involvement from nomination through test execution and final test product transition. The JPO PM assigns AOs to each project to facilitate JPO assistance and oversight and serve as the primary point of contact to the JPO. TDs provide technical consultation and advice to the PM and guidance to the JT&E projects concerning test standards and methodologies. The USJFCOM LNOs provide a direct link for the JT&E Program into USJFCOM to facilitate JFS and JT planning and participation in joint exercises and training events. The Director, JT&E-Suffolk, is responsible to the PM for operations and management of the facility, to include the JTSC. Federally Funded Research and Development Centers (FFRDCs) support the JPO by providing independent technical assessments of each JT&E project. Figure 1-2 depicts the JT&E Program top-level organization.





**Figure 1-2. Joint Test and Evaluation Top Level Organization**

### 1.2.2 The Joint Test Support Cell

The JPO established the JTSC to provide a “quick start” capability for JFSs and to support the initial review of QRT nominations. JFSs historically start with limited testing knowledge and have a steep learning curve for new personnel. The primary goal of the JTSC, staffed by a core group of full-time JT&E planning, technical, and operational experts, is to educate, train, and assist the JFS staff to design a robust and valid joint test. The JTSC will assist and advise Joint Feasibility Study Directors (FSD) on the JT&E programmatic and technical aspects of conducting a JFS and designing a joint test. In addition to providing test planning and technical support to JFSs, the JTSC also advises the PM and TD on technical and programmatic issues and documentation of each JFS.

Each Service typically provides an Operational Test Agency (OTA) LNO. The LNOs will report to their respective OTA or other organization designated by their Service. LNOs are responsible for providing an interface between the JTSC and the Services and/or OTAs.

The primary roles of the JTSC are dependent upon the type of JT&E project they are supporting.

JTSC duties as applied to JFSs:

- Provide annual nomination training for interested nominating agencies.
- Independently review new nominations against standards (problem statement, operational issues, definability, testability, scope, and resources) providing for Planning Committee

(PC) prioritization and Senior Advisory Council (SAC) recommendations to DD,AW and JPO.

- Independently research PC recommended nominations to prepare the JTSC teams for immediate support if directed as a JFS.
- Provide a generic work breakdown structure to the JFS teams and work with them on tasks in order to develop executable plans of action and milestones.
- Provide “quick-start” support in problem decomposition, issue refinement, scoping, test concept, and Consolidated Resource Estimate (CRE) development.
- Provide initial technical training.
- Assist the FSD in identifying appropriate test venues and test tools and drafting the Program Test Plan (PTP).
- Assist the FSD on all programmatic aspects associated with startup and execution of a JFS, such as Technical Advisory Board (TAB) and SAC briefs.
- Provide training, development, and facilitation to Joint Warfighter Advisory Group (JWAG) events.
- Assess the effectiveness and practicality of prior JTSC support and training through lessons learned and feedback.
- If chartered, assist in the transition from JFS to JT and provide initial training focusing on specialized technical areas.

JTSC duties as applied to QRT nominations:

1. Assess nominations against established standards (operational issues, definitions, testability, scope, resources, and evaluation of facilities and venues) in order to provide recommendations to the JPO.
2. As requested and as time permits, assist the lead OTA with initial planning.
3. Provide training to representatives from the Services, COCOMs, Joint Staff, and other DOD agencies that nominate QRTs, as requested and as time permits.

### **1.2.3 Federally-Funded Research and Development Centers**

The JPO employs FFRDCs to conduct independent analysis support of JT&E nominations and projects. The JPO currently employs MITRE and the Institute for Defense Analyses (IDA) to conduct these assessments. The JT&E PM, in coordination with the FFRDC team chiefs and JPO TDs, assigns a specific FFRDC representative to each DOT&E-directed JFS and chartered JT. The FFRDC representative has the following duties depending upon the type of JT&E project they support.

FFRDC support to a JFS:

- Participate in weekly teleconferences and work with the JTSC to develop a suitable test concept (operational realism, test methodology, necessary test resources, data collection, instrumentation, data validation, and the analysis and evaluation plan).
- Participate in various JFS activities in coordination with the JPO-assigned AO and the JTSC. These activities may encompass participation and attendance at JWAG meetings, PTP reviews, and technical exchange meetings. Provide internal feedback regarding these activities to the JTSC, JPO AO, and FSD.
- Review and make comments on the PTP and TAB briefings. This review should consider such aspects as suitability of the test concept, proposed venue, risk reduction

plans, and the identification of program risks. The FFRDC representative will provide this review to the FSD, JPO AO, and TD.

- Provide the JT&E PM with a written technical assessment of the JFS ten working days prior to TAB II. The FFRDC representative will provide this assessment in coordination with the assigned JPO AO and TD.
- Notify the JTSC and JPO AO whenever potential issues or problems arise.
- Act as a technical expert resource and provide technical skill reach-back capability in the event a highly technical issue arises that requires expertise not resident within the JTSC or JFS staff. The FSD must request this additional support through the JT&E PM and coordinate for it using the assigned JPO AO and TD.

FFRDC support to a JT:

- Participate in various JT activities in coordination with the assigned JPO AO and TD. These activities may encompass participation and attendance at JWAG and General Officer Steering Committee (GOSC) meetings, DTP reviews, risk reduction activities, technical exchange meetings, test readiness reviews, test execution, and post-test analysis and evaluation meetings and briefings.
- Review and make technical comments on test documentation and associated briefing materials. This review should consider such aspects as suitability of the test concept, proposed venue, risk reduction plans, and the identification of program risks (that is, operational realism, test methodology, necessary test resources, data collection, instrumentation, data validation, and the analysis and evaluation plan. The FFRDC representative will provide this review directly to the assigned JPO AO and TD.
- Provide the JT&E PM with a written technical assessment of the JFS at least ten working days prior to any program review. The FFRDC representative will provide this assessment quarterly if the JT did not conduct any events within that quarter.
- Notify the JPO AO and TD whenever potential issues or problems arise.
- When requested, continue to provide technical assistance with the development of DTPs and test event reports. Act as a technical expert resource and provide technical skill reach-back capability in the event a highly technical issue arises that requires expertise not resident within the JT staff. The JTD must request this support and coordinate it with the JT&E PM through the assigned JPO AO and TD.

### **1.3 The JT&E Process**

The annual JT&E project cycle begins each March with a call for nominations letter that the JPO sends to the Services, COCOMs, Joint Staff, and other DOD agencies. Nominating agencies develop and refine their nominations and forward them to the JPO by October as per the instructions contained in the nominating letter. The PC will review nomination packages and receive briefs in late October in order to prioritize nominations for the SAC. The SAC convenes in January to review the PC's recommendations and receives briefs from the nomination proposal teams. Using the recommendations of the SAC, the Chairman directs selected nominations as JFSs. During the next seven months, the JFS team, with the assistance of the JTSC, writes a PTP, which the JT will use to execute the project if chartered. The JPO and FFRDC representatives review the PTP and the FSD briefs it to TAB II in order to determine the technical feasibility of executing the test concept. The SAC will convene again in August to

review the JFS findings and recommend chartering selected JFSs as JTs to the SAC Chairman. Once chartered, the JT will execute the plan contained in the overarching PTP.

Services, COCOMs, Joint Staff and other DOD agencies can submit QRT nominations at any time. The JPO will review extremely urgent problems immediately while the OTA working group will review all other nominations on a quarterly cycle. After initial review, the Executive Steering Group (ESG) will recommend selected nominations to be directed as QRTs by the ESG Chairman. The execution phase for a QRT is very similar to a JT except one or more Service OTAs plan, execute, and report on a QRT. Since OTAs are staffed with test experts and technical oversight, the QRT is able to be executed faster than a JT and should be completed within 12 months of the date it was directed.

Figure 1-3 provides an overview of the JT and QRT process used by the JT&E Program. Chapter 2 contains specific information for the JT&E nomination and JFS process. Chapter 3 provides information on the JT execution process, and chapter 4 provides details on the QRT process.

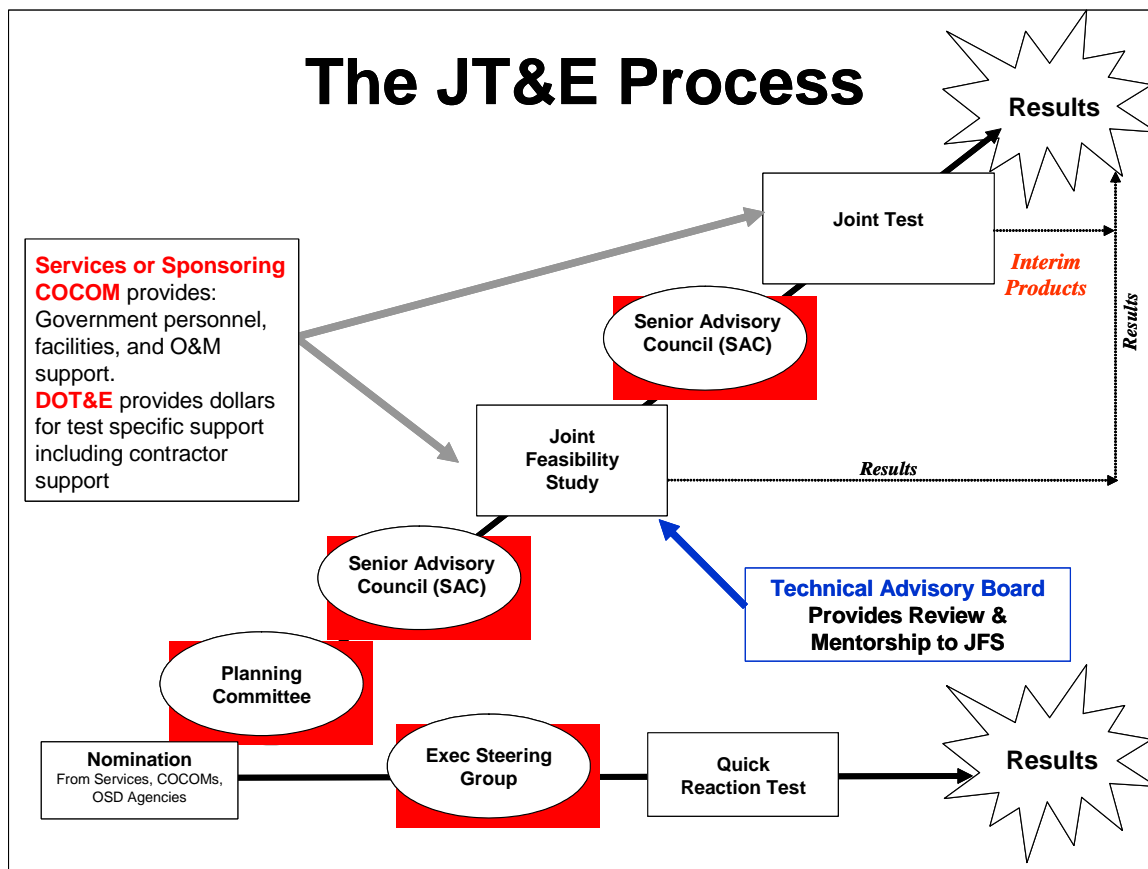


Figure 1-3. JT&E Project Process

### 1.3.1 JT&E Standing Committees and Boards

JT&E projects receive reviews at designated milestones as they proceed through the JFS and JT. These reviews have three purposes: 1) to ensure the test is executed successfully

yielding valid results; 2) to ensure the test is conducted using valid and excepted test methodologies (is it feasible); and 3) to ensure that DOT&E and Service resources are wisely expended. The following paragraphs introduce standing committees and formal reviews for a JT&E project.

#### **1.3.1.1 Planning Committee**

Upon receipt of the nominations, the JPO convenes the PC; with representatives from the four Services, Joint Staff, USJFCOM, and selected DOD Agencies; to review the nominations and recommend to DD,AW those candidates that should be sent to the SAC for review. The JT&E PM is the chair of the PC. The PC validates that the nominations are operationally relevant and meet the established JT&E criteria, that they are programmatically sound, and have adequate resources identified for a successful project. The PC documents the ability of the Services to provide the necessary personnel and facilities, establishes the potential operational utility of the proposed JT&E project products, and estimates the potential impact of these products on joint capabilities. Operational representatives on the PC will assess military necessity and priority within the warfighting community. The PC representatives will provide information on Service positions, coordinate for projected resource requirements, and prioritize those nominations to present to the SAC.

#### **1.3.1.2 Senior Advisory Council**

JT&E nominations are presented to the SAC in January of each calendar year. The SAC prioritizes them and develops recommendations relative to which ones should be directed as a JFS.

### **Senior Advisory Council (SAC) Members**

<b>DOT&amp;E -</b>	<b>Air Warfare, Deputy Director (<i>Chair</i>)</b>
<b>JCS -</b>	<b>J8 Force Structure, Resources &amp; Assessment, Deputy for Resources and Acquisition</b>
<b>Army –</b>	<b>DCS G8 Force Development, Director of Integration</b>
<b>Navy –</b>	<b>CNO, N091, Director, Test &amp; Evaluation and Technology Requirements</b>
<b>Air Force -</b>	<b>HQ Air Force, Director of Test and Evaluation</b>
<b>USMC-</b>	<b>Marine Corps Combat and Development Center, Director of Expeditionary Force Development</b>
<b>JFCOM -</b>	<b>J8 Director for Requirements and Integration</b>
<b>SOCOM –</b>	<b>Operational T&amp;E, Director</b>
<b>AT&amp;L -</b>	<b>Defense Systems, Deputy Director</b>
<b>PA&amp;E -</b>	<b>General Purpose Programs, Tactical Air Programs</b>
<b>ASD NII -</b>	<b>Director, Architecture &amp; Interoperability</b>

**Figure 1-4. SAC Membership**

A recommendation by the SAC represents Service and Joint Staff concurrence of the nomination's viability and is an initial commitment that Service support will be available. Based on the SAC recommendations and available JT&E funding, the SAC Chairman selects the most operationally relevant and achievable of the nominations to proceed as a JFS. Additionally, the JFS Directive letter will designate lead Service or sponsoring organization, participating Services, and appoints the FSD. Figure 1-4 lists SAC member organizations; each organization is entitled to only one vote. Designation of a specific SAC representative is at the discretion of the member organization; however, that person should also have the authority to commit their organizations' resources.

During August of each calendar year, the SAC is briefed on the results of the seven month JFS. It considers the necessity of the proposed JT and the recommendations of the TAB before recommending to the Chairman which JFSs should be chartered as JTs.

The JPO and DD,AW may request that the SAC review a JT at any time if changes to the test concept or PTP are required due to circumstances that occur during execution of the test. In addition, the SAC reviews the final products of a JT at completion and can make recommendations on transition of test products.

#### **1.3.1.3 Technical Advisory Board**

The TAB is comprised of senior civilian scientists and engineers from OSD, the Services and joint commands that provides technical advice to the JPO, SAC, JFSs, and JTs. Figure 1-5 lists TAB membership. The TAB Chairman serves as the technical advisor to the SAC and provides a technical assessment of each JFS at the August meeting. The TAB Chairman is selected from the Service OTAs and rotated at the discretion of the JT&E Program Director (DD,AW).

### **Technical Advisory Board (TAB) Members**

<b>Navy –</b>	<b>Technical Director, COMOPTEVFOR (<i>Chair</i>)</b>
<b>Army –</b>	<b>Technical Director, ATEC</b>
<b>Air Force –</b>	<b>Deputy Director, Air Force Test &amp; Evaluation</b>
<b>USMC –</b>	<b>Scientific Advisor, MCOTEA</b>
<b>USJFCOM –</b>	<b>Executive Director, J7 Joint Warfighting Center</b>
<b>USSOCOM –</b>	<b>Chief, Space and Air Programs, J8</b>
<b>ASD(NII) –</b>	<b>Chief, Information Interoperability</b>
<b>AT&amp;L –</b>	<b>Deputy Director, Dev Test &amp; Evaluation</b>
<b>DISA –</b>	<b>Director, Test &amp; Evaluation</b>
<b>DOT&amp;E –</b>	<b>Program Manager, Joint Test &amp; Evaluation</b>

**Figure 1-5. TAB Membership**

The primary purpose of the TAB is to support the SAC's JT&E project chartering recommendation by reviewing and evaluating the feasibility and execution risk of proposed JTs. Feasibility indicates the JT can adequately address the test issues (viable scope, focus, test concept, test objectives, analysis and evaluation plan, and implementation strategy). The TAB will meet twice during the seven-month JFS to review the proposed test concept. TAB I will review and provide advice on the problem statement and test issues. TAB II will provide the SAC with an assessment of the technical feasibility of the proposed JT. The SAC may also direct the TAB to conduct periodic technical reviews of chartered JTs.

#### 1.3.1.4 Executive Steering Group

The ESG is responsible for recommending to the Chairman (DD,AW) which nominations to direct as QRTs. There are two review processes for presenting nominations to the ESG; see Chapter 4 for a detailed discussion. USJFCOM and the Joint Staff will vet the nominations in terms of being "joint" and "urgent" and provide this assessment and any associated comments to the JPO for ESG's consideration. Composition of the ESG is contained in Figure 1-6.

<b>Executive Steering Group</b>	
<b>DOT&amp;E -</b>	<b>Deputy Director, Air Warfare (<i>Chair</i>)</b>
<b>Joint Staff -</b>	<b>Deputy for Resources and Acquisition, J8 Force Structure, Resources &amp; Assessment</b>
<b>USJFCOM -</b>	<b>Director for Requirements and Integration J8</b>
<b>USSOCOM -</b>	<b>Director, Operational T&amp;E</b>
<b>Army -</b>	<b>Director of Integration, DCS G8 Force Development</b>
<b>Army -</b>	<b>Commander, Army Test &amp; Evaluation Command</b>
<b>Air Force -</b>	<b>HQ Air Force, Director of Test and Evaluation</b>
<b>Air Force -</b>	<b>Commander, Air Force Warfighting Center</b>
<b>Navy -</b>	<b>Director, Test &amp; Evaluation and Technology Requirements, CNO, N091</b>
<b>Navy -</b>	<b>Commander, Operational Test and Evaluation Force</b>
<b>USMC -</b>	<b>Director, Expeditionary Force Development, Marine Corps Combat and Development Center</b>
<b>USMC -</b>	<b>Director, Marine Corps Operational Test and Evaluation Activity</b>

**Figure 1-6. ESG Membership**

#### 1.3.1.5 General Officer Steering Committee

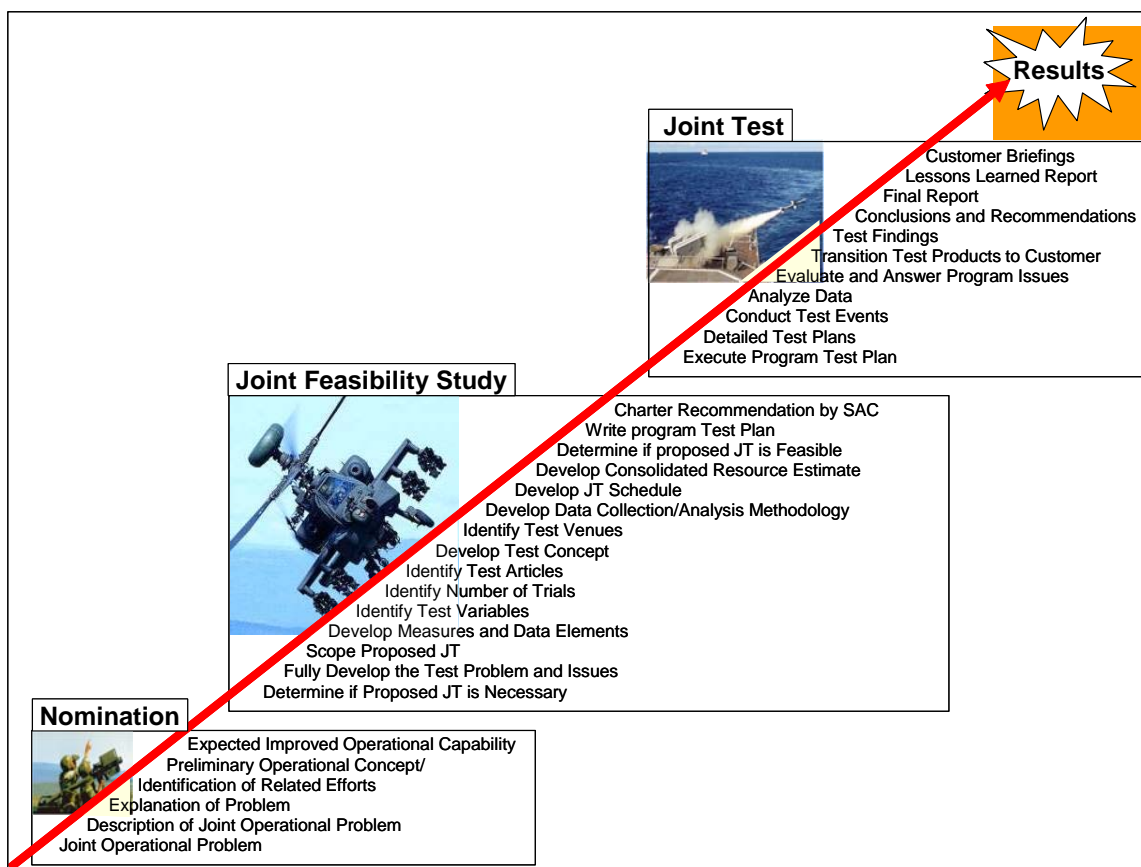
The GOSC is an advisory body that provides a JT&E project a forum for senior-level counsel and advocacy from the Services, COCOMs, OSD, and other DOD agencies. The GOSC will consist primarily of flag officers and senior executive service (SES) officers who will advise the JTD on Service and joint policy, doctrine, and the roles and missions related to the JT&E project. It is the responsibility of the JTD to organize and invite



GOSC members that are associated with the particular objectives of the JT&E project. When established, the JTD should include the GOSC in the review cycle of test planning, analysis and evaluation, reporting, and the development of test products. The GOSC can be a critical part of transitioning test products to the warfighters and the JT&E project should bring members into this effort early in the project timeline.

### 1.3.2 JT&E Project Execution

Both JT&E projects (JT and QRT) have specific processes and milestones that support a successful test yielding verifiable and valid results that benefit the warfighter. The call for nomination letter contains the detailed requirements of a nomination. The established procedures and work breakdown structure used by the JTSC guided the JFS. The PTP developed during the JFS phase guides the JT team. Figure 1-7 illustrates the sequential relationship of activities associated with a three year JT. Chapter 2 provides greater detail for nomination and JFS activities and chapter 3 for JT activities. Chapter 4 contains the review, vetting, and oversight requirements for QRTs. Test support information is contained in the annexes.



**Figure 1-7. JT&E Program Activities Flowchart**

### 1.3.3 Public Release of Information

It is the responsibility of the JT&E Program Office to ensure JT&E-related information is not inappropriately released to unauthorized persons, organizations, or foreign nationals via



interviews, reports, briefings to the public domain, or press releases, and to re-emphasize following DODD 5290.9, Clearance of DOD Information for Public Release.

JT&E project directors are responsible for obtaining proper public affairs clearance of any official JT&E project information intended for public release that may be potentially sensitive or controversial. For classified and “For Official Use Only” (FOUO) information, directors will comply with guidance provided by DODD 5200.1, DOD Information Security Program and DODD 5400.7-R, DOD Freedom of Information Act. Review of information presented to audiences consisting solely of government civilian or military personnel holding clearance levels appropriate to information presented is not required. JT&E projects may obtain a public affairs review at the local military base level, unless they release it to, or requested by, non-United States personnel or organizations. To comply with DODD 5230.9, JT&E project directors must forward the information to the JPO for submission to the Office of the Director, Freedom of Information and Security Review (DFOISR), Washington Headquarters Services.

The security manager must complete a security review prior to the physical release date of the information. This security review will utilize the guidelines provided in DODI 5230.29, Security and Policy Review of DOD Information for Public Release. For submittal, the following is required:

- A completed DD Form 1910 clearance request form (available online at: <http://www.dtic.mil/whs/directives/infomgt/forms/efoms/dd1910.pdf>)
- Three copies of the information to be cleared

JT&E projects will forward these materials to the JPO public release official (PRO) at least 30 days prior to the projected release date. The PRO will then staff the package and forward it to DFOISR. For foreign release of information, this process can take longer. The JT&E project director must ensure there is sufficient lead-time for the package to receive appropriate clearance for release.

#### **1.3.4 JT&E Outreach**

In today’s budget-constrained defense community it is essential to promote the accomplishments and value-added of the JT&E Program. One of the best means to promote the accomplishments of the JT&E Program is to highlight value derived from current and previous projects to the warfighter throughout the DOD community. As a natural outgrowth to managing the JT&E Program, DOT&E has directed additional procedures be put in place to increase the visibility of the JT&E Program both within the DOD community and among the general public. JT&E projects must design individual outreach programs to fit within the overall objectives and procedures established by the JT&E Program. Annex K provides the requirements of the JT&E outreach program.

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## **CHAPTER 2 JOINT TEST AND EVALUATION NOMINATION PROCESS AND JOINT FEASIBILITY STUDIES**

### **2.0 Introduction**

This chapter provides consolidated guidance, direction, information, references, and procedures to Services, combatant commands (COCOMs), and other Department of Defense (DOD) agencies who submit nominations to the Joint Test and Evaluation (JT&E) Program Office (JPO) for consideration as a JT&E project. It addresses the nomination process and the functional and organizational requirements to consider in establishing and organizing the joint feasibility study (JFS) and actions required to develop a technically sound and viable test concept for a joint test (JT).

### **2.1 Nomination Process**

The JPO annually disseminates a formal call for nominations letter, with a nomination package format, to the joint community and the Services, in the March timeframe via formal letter, e-mail, or posting on the JT&E web site: <http://www.jte.osd.mil>. A copy of the nomination outline is contained in Appendix L-1. From this, the Services publish their own call for nominations in which they establish nomination procedures and due dates. The COCOMs, Joint Staff, Services, and other DOD agencies can also sponsor and submit JT&E project nominations.

The nomination sponsor will submit a nomination package using the approved nomination format through the appropriate Service, Joint Staff, or Office of the Secretary of Defense (OSD) channels to the JPO. Service headquarters and the Joint Staff should screen each of their respective nominations to ensure that it is addressing one or more of the objectives and decide which ones to forward for consideration. Nomination packages must have both resource sponsor and operational endorsement letters. There are upfront resource requirements to the organization or agency proposing the JT. The sponsor must identify a full time Joint Test Director (in the grade of O-6) in the nomination package along with a commitment to provide facilities and administrative support for the JT.

If a nomination package does not meet the essential minimum objectives appropriate for a JT, the JPO will return the package to the nominator with specific rationale. The JPO will schedule the Planning Committee (PC) review of nominations that meet the objectives for a JT. In preparation for the PC meeting, a copy of the nomination package and supporting PC briefing will be included as part of the read-ahead. The PC will receive nomination briefings and ask clarifying questions. The PC prioritizes the nominations and determines which nominations to recommend to the SAC for consideration as a JFS. The SAC consists of flag officers and Senior Executive Service (SES) personnel who represent each Service, COCOM, DOT&E, and other DOD agencies.

Budget constraints dictate that the expenditure of OSD and Service resources be limited to those JT nominations that are the most pressing and most significant to the joint warfighter. The level and extent of Service and joint community support for the nomination will be a significant factor in whether or not the nomination moves forward to the SAC for consideration as a JFS.

The key to a SAC recommendation is the nominations potential for significant improvement to joint capabilities and the level and extent of joint and Service interest in, and support of, the nomination.

### **2.1.1 Nomination Preparation**

Approval of a JT&E nomination will depend on the sponsor's preparation and presentation during the review and approval process. A well thought-out nomination must contain a concise description of the joint problem the JT will address, the operational issues to be answered, expected improvement in joint operational capabilities, identification of anticipated users of the test products and must list those organizations that concur with the nomination. The nomination should be of sufficient detail to convince the Senior Advisory Council (SAC) that the proposed JT will significantly improve joint operations and capabilities.

It is incumbent on the nominating organization or agency to devote sufficient time and resources necessary to ensure that a nomination and the accompanying presentations are quality products. Those interested can download a nomination-training module that contains details and specifics of how to construct a JT nomination from the JT&E website (<http://www.jte.osd.mil>). In addition, those who desire additional training can contact the Director of JT&E-Suffolk (contact information located at the JT&E website). Nominations must support the concepts of Joint Vision 2020, military transformation, a COCOM's integrated priority list (IPL), and/or United States Joint Forces Command's (USJFCOM) warfighter challenges. The sponsoring organizations can submit a JT nomination that addresses:

- Joint military operational issues affecting combat operations and capabilities. Typically, a nomination derives these operational issues from on-going combat operations and recurring Joint Staff and USJFCOM issues and lessons learned conferences.
- Joint transformational issues raised through the Joint Staff or USJFCOM
- Joint issues identified from COCOM field assessments and tactical operations

The formal nomination package should focus on the following:

- A concise description of the operational problem and a draft problem statement
- An operational explanation of what tasks the warfighter cannot accomplish and what the JT will address
- The purpose and expected operational benefits of the proposed JT
- The expected improvements to operational capabilities and expected results and products
- Address the scope and test limitations
- Any endorsements and support of joint and multi-Service advocates

The PC will use these criteria as part of the review process to make recommendations on forwarding the nomination to the SAC.

### **2.1.2 Appointment of Feasibility Study Director**

As part of the nomination package, the nominating agency must provide the name and qualifications of the FSD who will be responsible for conducting the feasibility study. The nominee should be a military officer in the grade of O-6. The nomination should address the



who represent the four Services, the COCOMs, the Office of the Secretary of Defense (OSD), and other relevant operational agencies. This will ensure the proposed JT is addressing an agreed-upon joint problem and has support from the DOD community at large.

### **2.2.1 Establish and Organize the Joint Feasibility Study**

When directed as a JFS, the FSD will face a myriad of requirements that include establishing and organizing the JFS, conducting literature searches, obtaining documents and directives, establishing liaison with POCs, and so on. Immediate requirements will center on:

- Coordination for JTSC assistance via the JT&E PM
- Obtaining adequate JFS facilities
- Obtaining qualified staff and contractor support personnel in a timely manner
- Obtaining support resources (for example, communications, and ADP equipment)
- Refining the JFS budget and securing the required funds
- Organizing the JFS and tailoring the generic work breakdown structure (WBS) and schedule provided by the JTSC
- Establishing support and coordination POCs among the Services, Joint Staff, and OSD
- Providing for security of JFS actions, documents, and records

One key to a good JFS is an organization staffed with test and evaluation technically qualified and experienced personnel who maintain continuous communications with the Services. The lead Service, COCOM, and/or other DOD agency will assign the FSD and the JFS support agent. Ideally, the FSD should have been involved in the nomination process and be immediately available to initiate JFS actions. The FSD should initiate coordination with the designated participating Services to obtain commitment for assignment of support personnel and access to Service SMEs on a temporary duty (TDY) basis.

#### **2.2.1.1 Initial Assistance**

One of the first tasks of the newly appointed FSD will be to contact the lead Service, COCOM, and/or other DOD agency; participating Services; and the JT&E Program Manager (PM) to discuss in detail personnel and facility support requirements, available local support, Service reporting requirements, and expectations. The JPO Action Officer (AO), assigned by the JT&E PM, will provide a current list of Service and joint community points of contact (POCs) that can provide assistance. JFS facility and administrative support is the responsibility of the lead Service, COCOM, and/or other DOD agency. The FSD should establish liaison with the POCs at both the lead Service headquarters and Operational Test Agency (OTA) levels because both have an interest and involvement in the potential JT. Service headquarters typically work very closely with the nominating unit, and OTAs can assist with manpower requirements in addition to providing members to the TAB.

When directed as a JFS, the lead Service headquarters will normally issue an order, letter, or directive that designates a subordinate command or agency to function as their support agent for the conduct of the JFS. Likewise, the headquarters of the participating Services will normally designate a subordinate command or agency to function as their JFS support agent.

During the initial stages of the JFS, it is important that the FSD collect and retain all documents and meeting minutes that pertain to the proposed JT. Often, the PC, TAB, and SAC provide guidance the JFS must consider in the development of an executable test concept. The FSD must provide a copy of these documents to the Director, JT&E-Suffolk, so that their contents can be included in the technical components that lead to the development of the PTP. The following is a list of the documents the FSD should retain and provide to the Director, JT&E-Suffolk:

- JT&E nomination package. This package provides information concerning the operational problem to be resolved, nominator's perspective of the problem, impact on joint effectiveness, and potential users of the test products.
- JT&E PC minutes. The PC minutes provide initial inter-Service coordination and identify the major participants and users of test results who must be included in the coordination of JFS-produced documents and products.
- SAC minutes. The SAC minutes contain information related to the operational perspectives of the flag officers and SES level members on the SAC.
- JFS Directive Letter. DD,AW issues this letter. It directs the execution of the JFS, designates the lead and participating Services and/or COCOMs, and approves the appointment of the FSD. In some cases, the JPO uses the SAC minutes as the JFS directive. This directive addresses the SAC issues and provides program-unique funding for the JFS.
- Service Directives and Instructions relating to JFS support. The headquarters staffs of the lead and participating Services and/or COCOMs write these documents to subordinate commands or agencies outlining responsibilities and priorities for providing support for the JFS. These directives and instructions provide the FSD with the authority to coordinate directly with supporting organizations to obtain facilities, administrative support, and staff personnel. These directives also designate the support agents with the authority to provide the required support.
- JT&E project documents. The JT&E library, located at the JT&E-Suffolk facility, maintains all documents produced by other JT&E projects, past and present. This library contains JT&E project charters, directives, PTPs, Detailed Test Plans (DTPs), final reports, and lessons learned reports. Of specific interest should be the JFS and JT lessons learned reports that contain problems encountered and recommended corrective actions.

### **2.2.1.2 Immediate Requirements**

Initiation of JFS activities should begin immediately after DD,AW issues the JFS directive letter. The lead Service, COCOM, and/or other DOD agency will provide facilities, personnel, and resources to the FSD. The JPO will provide JTSC assistance and funds to pay for costs that are unique to the needs of the JFS. The JT&E PM is available to provide management (contract, safety, security, resource, environmental, logistical, and fiscal) advice and assistance.

#### **2.2.1.2.1 Facilities**

The JFS directive letter will stipulate where the JFS will be located and what organization is responsible for providing the required facilities, resources, and support. The lead Service-, COCOM-, and/or other DOD agency-provided facilities,



resources, and support include such things as heat, light, furniture, safes, administrative office equipment, computers, and access to network bulletin boards and on-line internet and intranet services. Annex G deals with this topic in detail.

#### **2.2.1.2.2 Staffing the JFS Team**

One of the FSD's initial tasks will be to determine contractor staff skill that will be required to coordinate with the JTSC team in the development of the test concept. The FSD should select these personnel carefully to ensure a smooth transition from a JFS to a chartered JT because JTSC personnel do not transfer. The FSD should plan on a mix of skill sets that have a background in test planning and test execution. The JPO can provide example descriptions for these positions. The FSD must coordinate with the Director, JT&E-Suffolk, to merge the functions and responsibilities of the FSD's staff with the JTSC, and to share relevant familiarity with the test concept.

#### **2.2.1.3 Communications and Automated Data Processing Support**

The provisioning of adequate communications and automated data processing (ADP) equipment is the responsibility of the support agent designated by the lead Service, COCOM, and/or other DOD agency. The identification of equipment required and the requisition of this equipment are the responsibility of the FSD. Most support organizations have some communications and ADP equipment on hand. The FSD should coordinate with the designated support agent to determine availability of required equipment. The JPO may be a source if the lead Service, COCOM, and/or other DOD agency are unable to provide the required ADP support. The JPO maintains an inventory of residual communications and ADP equipment from past JT that may be available to newly directed JFSs. JFS communications and ADP capabilities should include computers and software to accommodate databases, planning, programming, analysis, and graphical requirements.

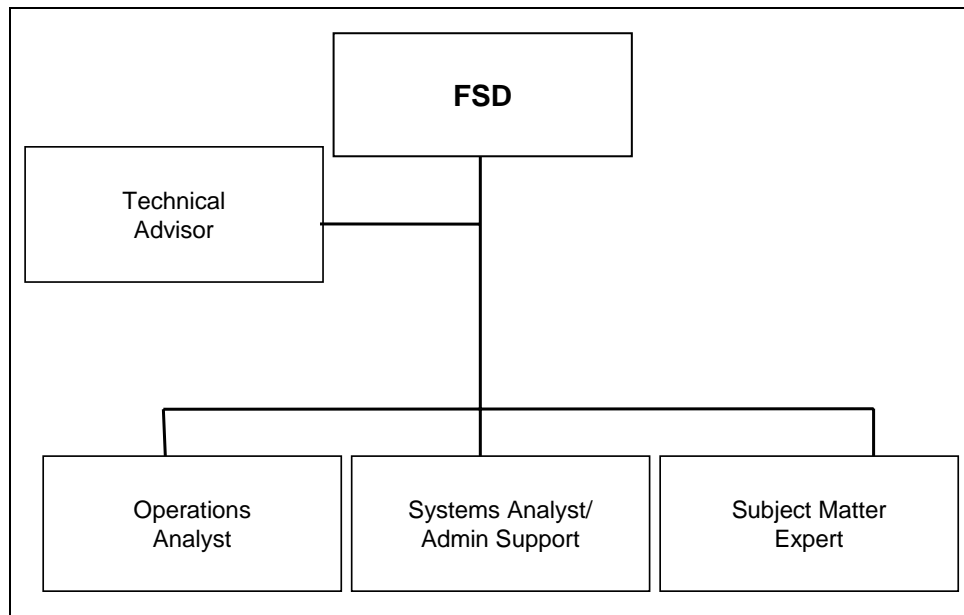
#### **2.2.1.4 Funds**

The FSD must fully understand the funding processes and procedures in the management of the OSD provided budget. Funding for the JFS will be in accordance with DOD Instruction 7000.14, *DOD Financial Management Policy and Procedures*. Immediately after directed, the FSD must contact the JT&E Deputy PM to discuss these policies and procedures.

#### **2.2.1.5 Organization**

There are several organizational options to best execute the JFS. Most JFS use a simple wiring diagram, as the one illustrated in Figure 2-2. See Annexes D and E for a detailed discussion of government and contractor staffing considerations.





**Figure 2-2. Example of a JFS Organizational Structure**

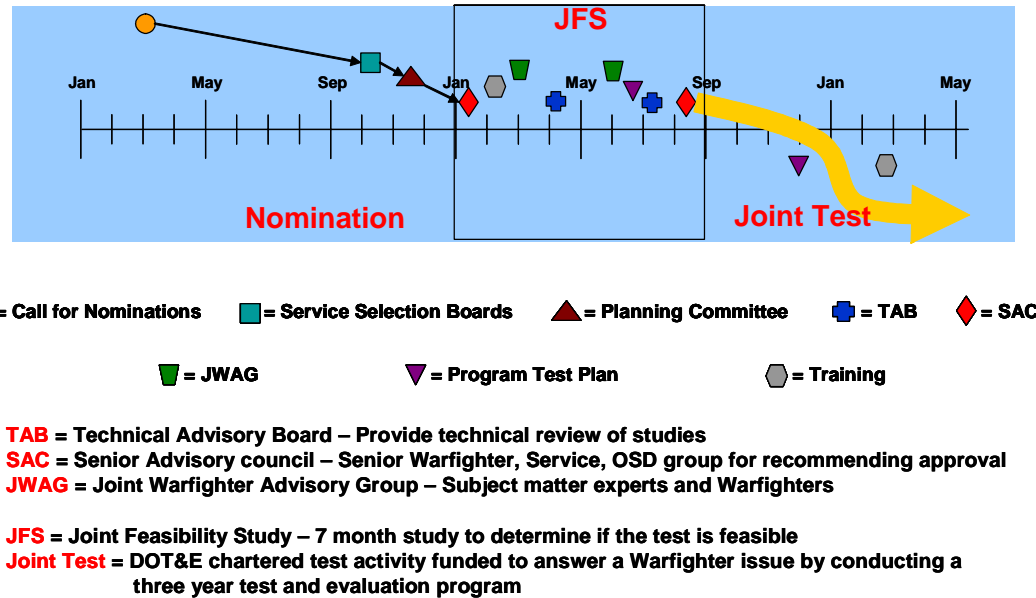
#### **2.2.1.6 Security**

The JFS must understand and address security considerations from the very beginning. Security is an area where errors of commission and omission can result in adverse actions. Annex H provides additional guidance for physical and operational security (OPSEC) requirements. As a JFS, the lead Service, COCOM, and/or other DOD agency and host facility guidelines will likely apply. Whenever a government or contractor person permanently departs, the JFS security manager will provide a formal, written outbrief. In the event of an individual holding a National Assessment Group (NAG) Special Compartmentalized Information (SCI) billet, the JFS security manager will also send the report to NAG.

#### **2.2.2 Joint Feasibility Study Execution**

The FSD must focus on developing a test concept that successfully meets the TAB benchmarks and convinces the SAC of the military necessity of the proposed JT. Figure 2-3 illustrates the milestones for decisions related to completing the JFS.

# Feasibility Study Timeline



**Figure 2-3. Joint Feasibility Study Milestones**

The primary purpose of a JFS is to provide those involved in the review and decision-making process, specifically the TAB and SAC, with sufficient information to make intelligent and well-informed decisions regarding the chartering of the proposed JT. To this end, the JFS must address, in sufficient detail, the answer to two critical questions:

- (1) Is the JT necessary?
- (2) Is the JT feasible?

If the JFS indicates the proposed JT is not necessary, the FSD should present the JFS findings at that point. If the DD,AW agrees the JT is not necessary, the FSD will conclude the JFS, prepare a JFS final report and lessons learned report, and initiate actions to close out the JFS. The JFS must answer the second question of critical technical feasibility during the PTP development, particularly by the second TAB meeting. Feasibility is inherent to the test schedule, executability of the proposed test concept, and the costs for executing the proposed JT.

## 2.2.2.1 Review Available Data and Documents

The JFS is an integral and sequential part of the JT&E Program. It is essential for all involved to understand the nomination process, the problem or situation that created the nomination, the recommended test concept, solutions, as well as who concurs with and will support the proposed JT. The initial step in conducting the JFS is to review and understand the documents that led to the nomination.

### **2.2.2.2 Ensure the JT is Joint**

The FSD, staff, and the JTSC must quickly become experts on the proposed JT, while retaining an unbiased and joint focus on the situation, problems, policies, directives, regulations, and doctrine associated with the nomination. The process for ensuring jointness includes obtaining the opinions of the Services, COCOMs, and any other government agencies that may have an interest in the test products that may emerge from the test events. The JFS usually accomplishes this by scheduling a Joint Warfighter Advisory Group (JWAG) early in the feasibility study to discuss the proposed joint problem and related operational issues. This process, if done methodically, will result in an agreed-upon joint problem and operational issues that focus on improving joint capabilities. Additionally, this will result in the greater likelihood the Services and the joint community at large, will accept, and adopt the test products that emerge from the JT.

Test products include items such as changes to TTP, system-of-systems architectures, and operational task oriented processes and process models. The items that will be tested and evaluated in a test event are the “test articles”. The JFS will identify an initial set of test articles. Often, as the test concept matures, the JFS identifies additional test articles. The JWAG will be integral throughout the JFS, and later as a chartered JT, in the team to identify appropriate and relevant test articles, and to transition all test products at the conclusion of the JT.

### **2.2.2.3 Develop the JFS Work Breakdown Structure**

In conjunction with the Director, JT&E-Suffolk, the FSD must develop a JFS schedule that meets the TAB and SAC milestones. The FSD can best accomplish this task through the development and execution of a work breakdown structure (WBS) within the first week. The JTSC will provide a generic JFS WBS to the FSD immediately after issuance of the JFS directive letter. The WBS provides a framework for specifying the technical objectives of the program by first defining the program in terms of hierarchically related, product-oriented elements and the work processes required for their completion. The WBS summarizes data for successive levels of management and provides the appropriate information on the projected, actual, and current status of the elements for which they are responsible. The WBS keeps the program's status constantly visible so that the FSD and the team's management, in cooperation with the rest of the JFS, can identify and implement changes necessary to assure desired performance. Each element of the WBS provides logical summary points for assessing technical accomplishments and for measuring the cost and schedule performance accomplished in attaining the specified technical objectives. Further, the WBS serves as a coordinating medium, not only internally, but also between elements of the JT&E community. Figure 2-4 depicts an example section of a WBS used during a JFS and demonstrates coordination between the JTSC and the JFS.



**Figure 2-4. Partial Example of a JFS WBS**

There are many flexible software applications for creating a WBS that include schedule graphics, estimating resource requirements, analyzing task dependencies, and tracking progress. At one level, WBS applications can provide a graphical presentation of the schedule, where project management simply lists the tasks and assigns task durations or dates. At a more sophisticated level, WBS applications also allow for managing efforts of any size, complexity, or risk and includes resource management features to include managing fixed staff resources and dealing with changing schedules. The JPO will authorize licenses for Microsoft Project to ensure commonality between the JFS and the JTSC.

The content of the WBS may vary depending on the JFS focus, personnel staffing levels, and technical complexity of the JT. The FSD must conduct periodic milestone reviews and modify the WBS and schedule of events to account for any changes in JFS planning, or changes in the availability of personnel or resources.

#### **2.2.2.4 Internal FSD Coordination Requirements**

The FSD must determine and establish the JFS coordination chain, identify Service and joint community POCs, and obtain signature authority of the sponsoring organization for JFS documents. The PC members, who represent their organizations during the nomination review process, are the entry point into their respective Services and joint agencies for support, briefing coordination, personnel, and test resource planning requirements.

#### **2.2.2.5 Determine Necessity of the Proposed JT**

The criteria described below and other relevant factors form the basis for the JFS team to assess a proposed JT's necessity. The team should conduct this activity during the early stages of the JFS. If the proposed JT is determined unnecessary, there is no reason to

continue executing the JFS. The question of necessity is resolved by evaluating the proposed JT in terms of the following five criteria the JFS must substantiate and document.

1. Do the nominated JT's concepts and issues meet one or more of the stated purposes of a JT? A JT formally brings two or more Services together and provides funding to address joint issues to resolve joint problems that independent Service actions cannot effectively address or resolve. The FSD must consider the requirements of all four Services, COCOMs, and other government agencies that are, or may be, affected by any test products that emerge from a JT and obtain their acceptance into a joint solution.
2. Do the JT issues address joint operational factors and do they require joint solutions? While the nomination, coordination, and selection process should preclude non-joint issues from reaching the JFS stage, there is the possibility that an issue that originally appeared to be joint, may subsequently prove not to be. Jointness is an absolute requirement.
3. Are the JT issues addressed elsewhere? The JFS may find other joint, Service, or OSD agencies are already addressing the nominated issues or that other ongoing or planned activities could incorporate the issues. The JFS must also determine whether, or not, these organizations or agencies could modify current or future activities to address the issues of the proposed JT. Additionally, historical reviews are necessary to determine if other efforts previously addressed the issues and the results of such efforts.
4. Is the problem of sufficient magnitude or joint significance that it warrants expenditure of the estimated resources to conduct the proposed JT? Usually, organizations that have seen some facet of the problem recommended the JT problem but they may not have a global understanding of the situation. While the concepts and issues may reflect critical unresolved problems, the proposed solutions may reflect isolated circumstances, parochial interest, or biases. It is important for the Services and joint community to vet the proposed JT during the nomination process. This will improve the Services and joint community acceptance that the proposed JT is addressing a joint operational problem and can result in a greater level of subject matter support during the JFS and in obtaining military personnel upon charter.
5. What is the probability the Services and joint community will implement or use the test products? Early identification of those users who will actually use and accept the test products is essential. This criterion is an assessment of the Service and joint support expected relative to implementation of the JT proposed solutions that resolve the operational problem addressed by the JT. The level and extent of Service coordination during the nomination process is a starting point for this determination. However, the proposed solution set might involve Service or Joint Staff policy or doctrine issues. The FSD must consider and mitigate these issues. The JFS must also define what the test products will be and identify who will be the expected users of these products. Evidence of support to use the test products at the flag officer level is necessary and not difficult to obtain if the test products are worthwhile.

#### **2.2.2.6 Develop Problem, Issues, Test Criteria, Measures, and Data Elements**

This is the most critical technical test-planning step in the conduct of a JFS. It is this stage that test planning begins and culminates in an executable PTP at the end of the JFS period. The joint problem is a statement the JT must solve through testing. Through decomposition of the problem statement, the JFS will identify and develop testable issues and multiple layers of relevant sub-issues that form the operational questions the JT must answer. Test criteria are statements of required technical, effectiveness, suitability, and supportability performance. Tests frequently express criteria as quantitative thresholds that provide the basis for collecting data used to evaluate and answer the issues.

When tests have known criteria, or can determine criteria using sources such as a JWAG, the development of measures of effectiveness and performance become simpler. When tests do not have known test criteria and cannot determine criteria through other methods, it may be necessary to plan a baseline test event to determine an initial set of criteria. When this occurs, the development of meaningful test measures becomes more difficult. This will require greater analytical effort to ensure the measures are oriented on the appropriate level of detail that results in identification of required data elements. JFSs document all these required data elements and associated measures in a test data requirements matrix (TDRM) for inclusion in the PTP.

The TDRM provides the basis for development of the test concept, supports identification of appropriate operational test scenarios and venues, and leads to the determination of the resource requirements, particularly cost. The principal method for accomplishing this activity is through the dendritic analysis process.

#### **2.2.2.7 Coordinate and Solidify Joint Problem Statement, Test Issues, and Criteria**

The JFS must coordinate the joint problem statement, test issues, and criteria with the Services, joint organizations, and agencies that have a direct interest in the problem area to obtain their concurrence and support for resources and transition of test products at the conclusion of the JT. The FSD must exercise caution, since some of these organizations and agencies may attempt to restructure the proposed JT during the coordination process. A technique previous JFSs used to minimize the effects of this dilemma was to ensure that scheduled JWAGs include invitations to each organization or agency, requesting that attendees have authority to speak for the organization.

This approach can result in the consolidation of ideas and concerns in a manner that satisfies the organizations and agencies involved. Coordination is easier when conducted under conditions where a group of interested and knowledgeable representatives airs their differences. The FSD, with advice from the JTSC, must coordinate in advance to ensure the “right” personnel are invited, the meeting place and date are convenient and acceptable, and the unit representatives understand what the FSD expects of them. This activity should commence several weeks prior to the scheduled JWAG to provide sufficient time for the organizations and agencies to identify the most appropriate representatives.

### **2.2.2.8 Test Concept Development**

The test concept is the key component to the feasibility and executability of a JT. It is important that the JFS team not forget that the principal purpose for conducting a test event is to collect data that provides the statistical rigor necessary to support a decision to accept and integrate test products to improve current joint warfighting capabilities. The following sections lay out the steps for developing a viable test concept.

#### **2.2.2.8.1 Scope the Proposed Joint Test**

The JFS must consider all facets of the joint problem such as type of combat missions, threat systems and levels of threat (for example, none, low, ambiguous, and opposed), type of military forces and equipment required, and relevant terrain and environmental considerations. Items such as these can result in a test concept that is neither practical nor achievable. Scoping the proposed JT concept and solution may be required to ensure the JT addresses only those facets of the problem that are germane and achievable within the prescribed test schedule and available resources.

Scoping of a proposed JT is a product of the dendritic analysis process used to decompose the operational problem down to the required data elements. This process begins by drawing an operational scenario “picture” that contains representations of a realistic operational environment consisting of combat missions, threat systems with threat levels indicated, terrain, C2ISR architecture framework, and so forth. This picture, coupled with the TDRM, identifies the test resources required to conduct specific test events. In the event that the test concept incorporated the application of models and simulations (M&S), the FSD must consider its impact on test operational realism. In the event that M&S is planned for use in the test, Annex I provides details regarding the application of M&S in a joint test environment.

#### **2.2.2.8.2 Determine Test Approach**

The test approach identifies the test articles and determines the type of testing the proposed JT will conduct. Type of testing can include a comparison between a baseline and an enhanced test event to determine the level of improvement, or it could be an incremental approach such as test-fix-test or sequential phases.

#### **2.2.2.8.3 Determine Test Methods**

Test methods are different types of tests used to generate required test data and provide the optimum opportunity to collect that data. The purpose of testing is to collect the data necessary to analyze results and answer the test issues. Test methods include mini-tests, field tests, and simulation tests. The distinction between the different test events lies in their primary purpose. A mini-test is normally narrow in scope with the intent to collect data on a specific aspect or application of a test article. Mini-tests are usually smaller scale tests involving limited participants or limited systems. JTs typically use mini-tests when only a single aspect of the test concept is present in a test or if concentrated testing needs to occur on a single test article. A field test is normally broad in scope with the intent to collect data on all aspects of or full application of all test articles. JTs normally conduct both mini-test and field tests in realistic operational environments or in training exercises that closely simulate



realistic operational environments. Simulation tests can be narrow or broad in scope and JTs usually conduct them to simulate particular systems or assets not available in planned mini-tests or field tests due to test limitations or constraints.

While not considered a test event, the JFS should also consider conducting a risk-reduction event as part of their test methodology. The JT should use a risk-reduction event to practice data collection and collect sample data in order to refine data collection forms and procedures, train data collectors, and prepare databases and analysis methods for actual test data. This allows the JT to refine their testing procedures and methods to ensure the JT has the ability and necessary practice to collect required data before conducting expensive test events. This is especially true before conducting their first test event but may also apply to follow on tests depending on the venue, location, or test focus. JTs may also use a risk-reduction event to help develop an initial test article or determine if a test article is feasible, however, the JT cannot use risk reduction event data to refine test products or answer test issues.

#### **2.2.2.8.4 Determine Test Design**

Test design identifies the test conditions required for conducting the test. It ensures that the test scenarios are realistic and adequate to generate required data for analysis.

The FSD must identify test scenarios that consider operational concepts, force structures (size and type of friendly and adversary forces), friendly and threat lay downs (realistic force component locations), rules of engagement, terrain, tactics, and timing. There are a number of sources available to select or establish the required scenarios.

Joint Publication 3-03, Doctrine for Joint Interdiction Operations, and the Joint Military Net Assessment are sources of validated scenarios that can be adapted or refined to fit the needs of the test concept. The test design should use an existing validated scenario, or a subset of a validated scenario, whenever possible. The test design can also use the Defense Intelligence Agency (DIA) to validate a modified scenario; however, this may take some time. If the JFS cannot find any scenarios that satisfy test concept requirements, the JFS may have to modify an existing scenario and initiate the required actions to obtain DIA approval.

#### **2.2.2.8.5 Identify Test Venues**

Potential test venues must provide the means to support the selected JT scenarios. Since most JTs participate in joint or multi-Service training exercises, it may be difficult to replicate the threat environment required by an approved scenario. By coordinating with the training event commanders, it is often possible for the JTD to influence the exercise scenario during the planning phases, especially if the JT can provide operational systems that will make the exercise more realistic and robust.



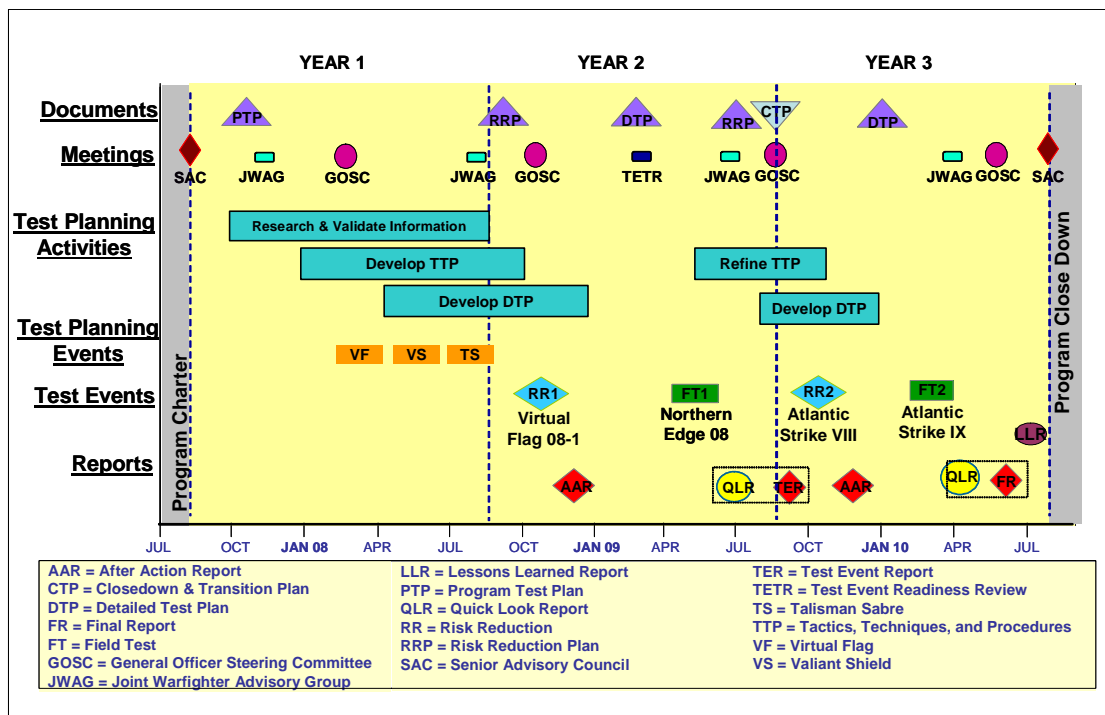
#### **2.2.2.8.6 List Test Assumptions, Limitations, and Constraints**

Test assumptions, limitations, and constraints can affect the credibility and reliability of the test findings, conclusions, and recommendations. The JFS should thoroughly research and document them during the development of the PTP.

- Test assumptions are what is “believed to be true” regarding a test event in the absence of fact. These are usually reasonable expectations, based on experience or past performance. Examples include, but are not limited to, the type of targets, weapons, tactics, command and control, threats, terrain, weather, and light conditions that are available in a test venue. Assumptions are relevant to the credibility of the test findings, conclusions, and recommendations. The FSD should validate assumptions as more information becomes available.
- Test limitations exist when the JT cannot replicate or obtain required data. These are usually due to limited, scarce, or not available resources. An example would be testing in an exercise that does not have, and will not replicate any Army command and control (C2) nodes even though these nodes are necessary to conduct the test event. There are usually no mitigations for a test limitation unless the JT can obtain the required data from another source. For each test limitation, the FSD must provide an assessment of its impact on solving the JT problem.
- Test constraints exist when the JT can replicate or obtain required data but the data is not of the required fidelity or quantity. An example would be testing in an exercise that has C2 nodes for an Army battalion instead of those for an Army brigade. They must be explicitly stated so the decision-maker has a complete understanding of how the test results should, or should not, be applied.

#### **2.2.2.9 Develop JT Schedule**

The JT schedule must identify all required test activities, reporting events, and test venues the proposed JT will accomplish in the three years allotted. The JFS must incorporate these test activities into a program schedule that provides for completion of the test activities in sufficient time to accommodate analysis and reporting requirements. Figure 2-8 is an example of a JT schedule. Note that the schedule includes projected meetings of the JWAG and General Officer Steering Committee (GOSC) meetings.



**Figure 2-5. Sample JT Schedule**

#### 2.2.2.10 Develop Data Management and Analysis Methodology

Planning for data management and analysis is one of the most important activities of PTP development. The results will guide how the JT data collection plans supporting each planned test event will be developed, what data collection methods and procedures are required, what data collection instrumentation must be considered, compatibility of data structures and formats required by the analysis tools, and control and security of classified data. Data management processes may be simple and straightforward, or complex and resource intensive. It is important to note that this activity is critical to the overall success of the proposed JT. The process must result in a well-defined analysis methodology that results in a rigorous analysis of the collected data and ensures that operationally relevant findings and conclusions emerge to answer the test issues.

The JFS is responsible for laying out the approach and framework for these activities in sufficient detail so that it is possible to judge the impact of data collection, management, and analysis activities on the overall cost and schedule of the proposed JT as part of the chartering decision.

##### 2.2.2.10.1 Data Collection

Data collection encompasses the data that must be collected as identified in the TDRM, where collected (data source), and by what means (instrumentation). These factors may affect the feasibility and cost associated with the proposed JT. The JFS team will have to determine data collection capabilities that can be provided through existing range or facility capabilities (for example, time-space-position information [TSPI], electronic warfare spectrums, Global Positioning System [GPS]) as opposed

to those requiring specialized equipment that must be brought to the test location. The JFS will have to consider the requirement for manual data collection methods (forms, logs, questionnaires) for each planned test event to include the number of data collectors required to complete the forms. Based on the TDRM, many different types of data collection equipment such as tape recorders, infrared detectors, video and still cameras, head tracking systems, software based data loggers, and meteorology stations, may be required as either primary or supplemental instrumentation.

All of the above point to the importance of considering the entire data collection process to determine the cost, instrumentation, training considerations, and personnel requirements of a proposed JT. Some of the required data collection equipment may be "long-lead" time procurement items that will necessitate immediate action by the Joint Test Director (JTD) upon charter. The JTSC will provide sample data collection forms during training. The JT can automate these forms using various types of portable data collection technology.

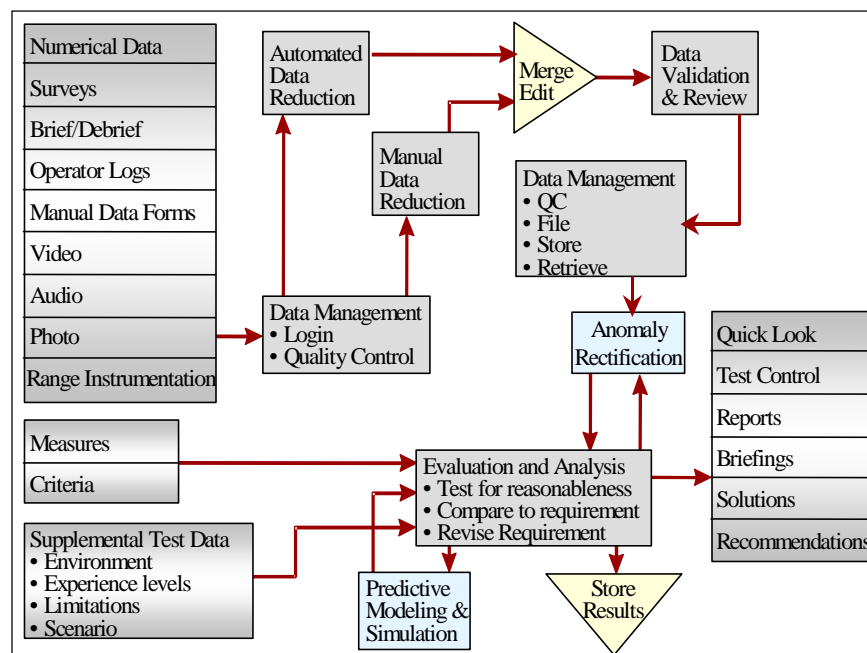
#### **2.2.2.10.2 Data Management**

Data management encompasses all of the control processes and hardware and software involved in collecting, storing, validating, recording, and resolving anomalies identified on a test report form, and retrieving test data for analysis. Although it is conceivable that a JT may involve only a manual data management system, it is much more likely they will have a computerized data management system. Thus, the JFS must address computer hardware and software requirements. Such factors as user access, data storage requirements, security, turnaround time, number of users, data analysis tools, and networking requirements drive hardware choices. Commercial off-the-shelf (COTS) relational database systems can generally meet software needs, although some development of specialized preprocessing software may be required. The JFS team must review the capabilities of these tools and others that may already exist in current JTs to maximize the reuse of available tools, minimize cost of user licenses, and reduce the learning curve.

Many factors, such as processing time and user expertise, determine how much development will go into automating and customizing such functions as data entry, error checking, database querying, data reduction, analysis, and report generation. The JFS must also address graphical analysis capabilities, tables, and flowcharting requirements to determine whether the JT must purchase specialized software, or whether currently owned JT databases or analysis software can be adapted to satisfy these needs.

The analysis methodology selected by the JFS team should address all aspects of issue resolution to include considerations of how the data will provide test findings, conclusions, and recommendations. The methodology must also consider the possible requirements to access various formatted data sources; respond to changes in instrumentation sources, data formats, and any requirement to share data with the collecting agency; track entire data sets and documentation; and extract patterns of system behavior from large data sets.

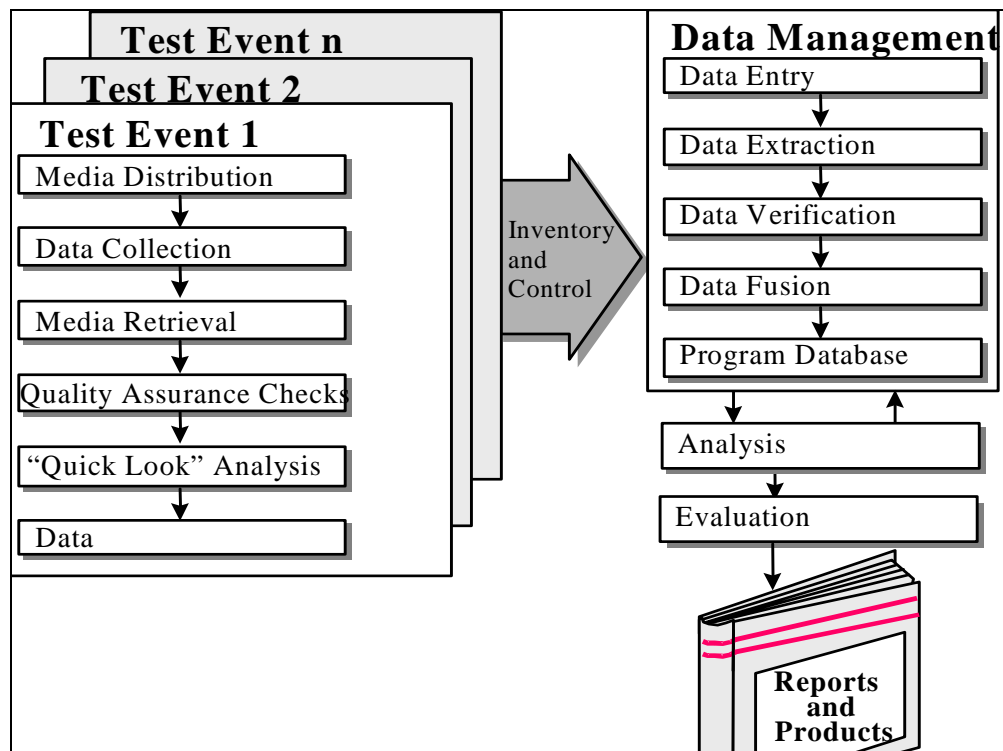
The JFS can use the process illustrated in Figure 2-5 to structure the contents of data collection, management, and analysis plans. Whenever there are agreements with other organizations regarding data sharing, it is important to document these agreements, explicitly, in a Memorandum of Agreement (MOA).



**Figure 2-6. Example of Data Management and Analysis Flow Process**

The JFS must address the process for ensuring the control and handling of data collected during each test event. A data processing flow chart can facilitate this. The individual data collection teams will collect data and conduct quality assurance and limited data reduction on site. When received at the JT processing facility, the data will undergo quality assurance review and data entry. At that point, analysts further reduce data to support analysis requirements, data fusion, and data verification. If large quantities of data are required, the JT should consider automated data entry screens that automatically route data elements to the correct fields and automated checks are made of data types to ensure data are within specified parameters.

Data extraction involves retrieving the data from numerous raw data sources and translating these data into acceptable formats. Data fusion merges the data of different types and sources into a format and file structure that best accommodates the data verification and analysis process. Data verification involves correlation and crosschecking the data for consistency and acceptability. This data flow process is required to ensure that no data are lost during processing and that analysts can repeat each step to address anomalies or uncertainties. Figure 2-6 is an example of a data processing flow chart.



**Figure 2-7. Example of a Data Process Flow**

Each data collection source will have an associated data recording media (manual forms, file on a computer disk, audio or videotape, photograph, system data recording tapes). For each media, the data management plan must include procedures that provide for the positive identification of each data element as it proceeds through the data management and analysis process. These procedures should address the requirement for serial numbers on repetitive forms, data identification that includes such things as the instrumentation sources and locations, date and time of data collection, and data format. The JFS should consider the use of computer printed or stick-on labels for serial numbering or bar codes and laser scanning in the development of the data collection and management procedures. To ensure the orderly cataloging of data media and the data contained on the media, procedures must also address the requirement to establish a data library.

The data management plan must specify the procedures, personnel, equipment, and facilities required for data library operations. Normally, a field data librarian will be required at each test site that will be responsible for the issue and control of data media, logging the distribution and receipt of the media, and delivering the original copies of the media to the JT data management center. A data librarian at the JT data management center will be responsible for the receipt, control, processing, and storage of all test data and the JT database.

Data quality is imperative to the success and credibility of the JT. The data management plan must address specific data quality assurance (QA) techniques,

depending on the utilization of data collection media. QA techniques must check manual data forms for completeness, legibility, and reasonableness of data magnitudes and sequences. During each pre-test event, analysts must validate all data collection forms and methods by using the forms in simulated test conditions that exercise data collection procedures and methods to ensure that data collection forms provide the means to collect the required data. If the forms are not effective, the JT Technical Director must make changes to the forms to ensure that the correct data are collected in appropriate formats and numerical measurement units (for example, feet versus meters). JTs should also create sample audio and video tapes to ensure recording equipment is functioning properly and that the required data record in the format and magnitude expected. The data management plan must address the requirement to calibrate all instrumentation used to collect data during a test event. Never assume the owner of the instrumentation will automatically calibrate instrumentation. Factors such as time constraints, personnel, and equipment requirements will determine to what extent analysts will accomplish these QA checks at the data collection site, the field library, or the JT data library.

Perhaps the most important part of QA is to ensure the entire data collection team clearly understands the importance of collected data. Each individual must receive training and accept responsibility for data collection accuracy. Data collection procedures should ensure the early identification of problems so JTs can take immediate corrective action.

The data management plan must address database design requirements. The term database refers to the data media and tools by which data are stored, retrieved, and analyzed by the analysis team. Typically, computer systems are the preferred media, although manual systems are possible. Different types of data may be stored in different databases or in portions of a single multimedia database. Geographically separated locations may link collected data via a network or process and merge data at a single location. Regardless of the methods, database procedures must ensure the protection and backup of all raw data to provide the means to recover data that are contaminated or lost during physical transfer from the test site.

A host of factors such as data storage requirements, computer-processing speed requirements, data turn-around times, number of users, geographic separation, security, and file sharing, determine test support hardware requirements. Figure 2-7 is an example of a JT hardware connectivity diagram. Hardware can be costly and may take some time to acquire. The JFS should, therefore, determine these requirements and identify the cost required to procure the required equipment, and ensure that the equipment and cost are contained in the CRE. The JPO maintains some database equipment purchased and used by previous JTs. The FSD should check with the JT&E PM to determine if the JT can use any of this hardware to satisfy requirements.

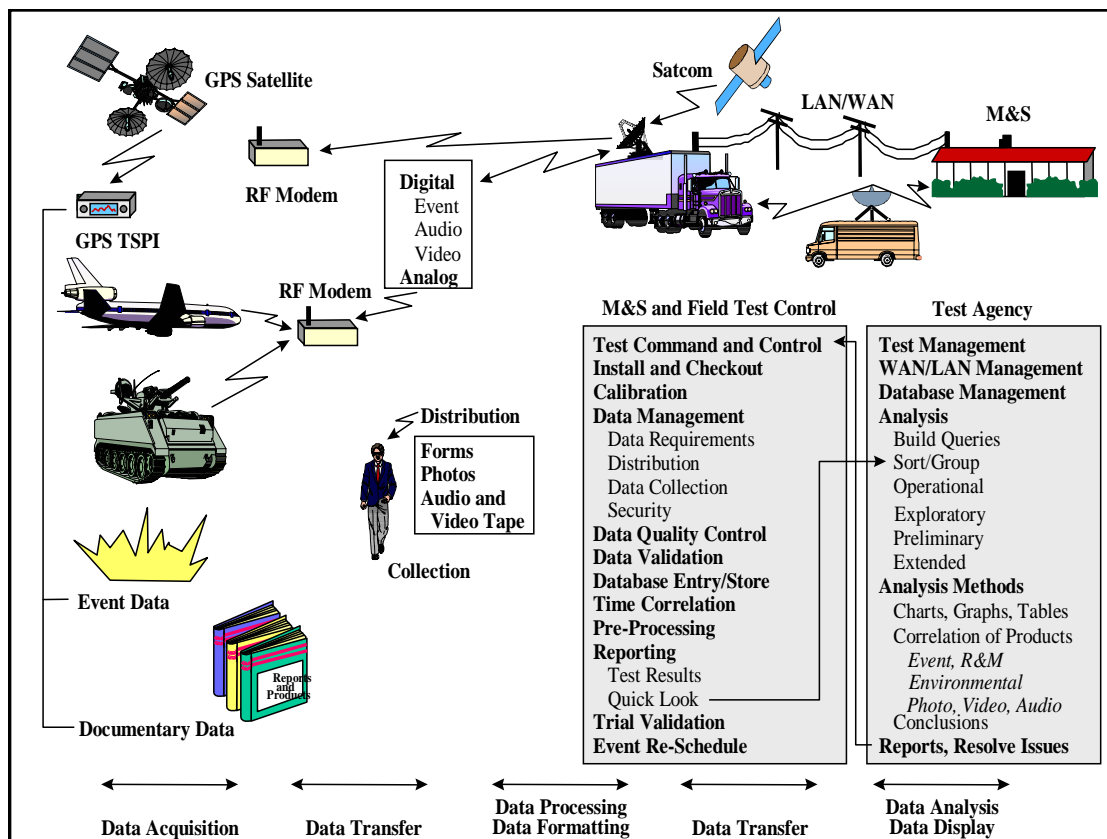
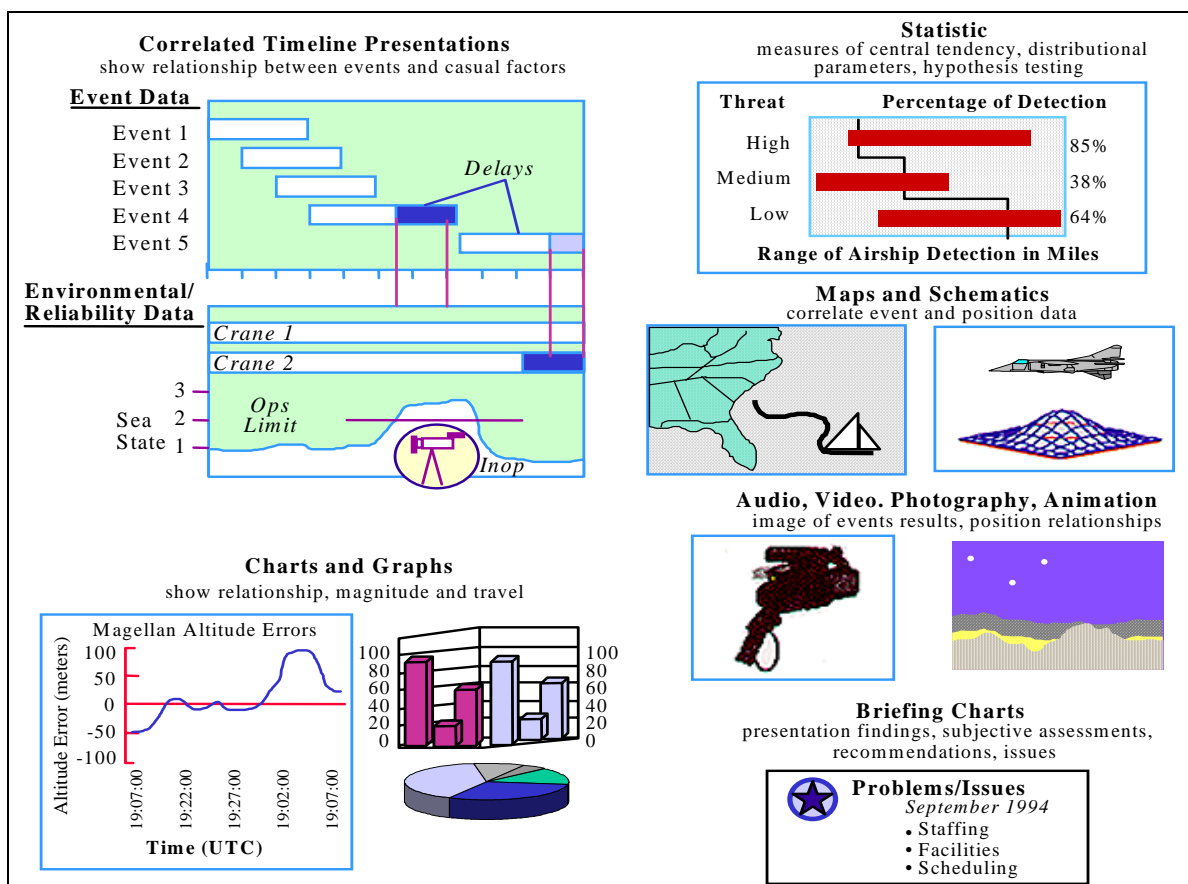


Figure 2-8. Example of JT Hardware Connectivity

### 2.2.2.10.3 Data Analysis

The process for the development of an analysis methodology begins with a complete understanding of the JT joint problem, issues, measures, data requirements, and associated test concept. The identification of analysis support requirements is an important, and often overlooked, factor. To ensure the JT can appropriately analyze test data, it is important the FSD identify the analysis methods and tools that will be required to conduct data analysis and support test-reporting requirements. Figure 2-9 illustrates examples of graphical data displays used by previous JTs. To support data analysis, the JFS team must identify appropriate analysis support software early in the planning process, normally concurrently with the dendritic analysis and TDRM development process.





**Figure 2-9. Examples of Graphical Data Displays**

### 2.2.2.11 Determine if Proposed JT is Feasible

Determining if the proposed JT is feasible is more complex than determining if it is necessary. The decision of feasibility relies on the test concept, availability of the test resources to execute the test events, availability of any unique data collection instrumentation, and lastly the cost of the proposed JT. The answers to the following questions will have bearing on the determination of feasibility:

- Can the JT be completed in the allotted time?
- Is joint testing the most effective way to resolve the operational problem that the JT will address?
- Is the test concept executable and will it provide the data required by the TDRM to answer the test issues and sub-issues? Will the selected test venues provide the opportunity to generate the data required by the TDRM and is there sufficient opportunity to collect that data?
- Is the test scope realistic?
- Can the JT issues and sub-issues be traced to the test measures, data elements, and data sources?
- Is the data management and analysis plan executable?
- Do the test issues and sub-issues consider the elements of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF)?



- Are test resources such as personnel, ranges, multi-Service aircraft, vehicles, military units, and ISR systems reasonably available and are the Services and owning agencies supportive?
- Will the warfighter implement the expected test products, and will the planned test reasonably produce and validate their applicability to improve warfighting capability?

The FSD must plan and manage the JFS activities to obtain the information and data required to answer these questions. The source and accuracy of the information and data will determine the credibility of the answers to the test issues and recommendations.

#### **2.2.2.12 Environmental Considerations**

As the JFS defines specific test activities, they must consider environmental factors and their potential impact on the feasibility of the proposed JT. Government regulations mandate that DOD activities comply with all legal statutes, such as the National Environment Policy Act (NEPA), to ensure the preservation of natural resources. There may be issues associated with a proposed JT that require mitigating actions or schedule changes to avoid an adverse environmental impact. Because such actions may involve lengthy procedures, such as Environment Assessments (EA) or Environmental Impact Statements (EIS), the JFS should anticipate and avoid environmental issues whenever possible. Annex C contains a more detailed discussion of environmental compliance requirements.

#### **2.2.2.13 Security Considerations**

The JFS must also consider security requirements in all aspects of the proposed JT. The PTP and DTPs must contain an annex that explicitly addresses physical security, OPSEC, and security of classified data collected during a test event. The requirement for a Sensitive Compartmented Information Facility (SCIF) and SCI billets can significantly affect the funds and time needed to conduct a JT. The FSD must also consider the requirement for the SAC, TAB, and JPO personnel to be read-in to the program. Annex H contains more details regarding security considerations.

#### **2.2.2.14 Funding Considerations**

The FSD has little to no control over a number of other variables that could influence feasibility. One is the level of JT&E Program funding. While a JT may be technically feasible and have the potential to provide significant payoffs to the joint warfighter, there may be insufficient funding available to charter the JT as designed in the test concept. One option is to use the dendritic analysis process to identify and remove sub-issues that may not be as important to the overall results. Based on a prioritization process and possible involvement of the JWAG, the FSD should have sufficient information to restructure the proposed JT to meet unforeseen budget constraints. This process will also apply should a reduction of funding occur after charter. Another area the JFS can use to reduce costs to meet budgetary constraints is to reduce the number of contractor personnel. Should the number of contractor personnel be reduced, it is important that the skills of those personnel and associated requirements to plan, execute, and analyze test data be considered. At a minimum, a qualified operations analyst should always be present through all JT planning, execution, and analysis events.

### **2.2.3 Develop the Program Test Plan (PTP)**

The PTP provides the program level specifics the JT must accomplish to answer the test issues and resolve the operational problem. The principal purpose of the JFS is to develop and document the test concept in the PTP. The processes, steps, and referenced annexes within this handbook provide the FSD the capability to write and publish, with assistance of the JTSC, an executable PTP. The PTP contains the test concept, data management approach, and analysis plan to execute the JT, if chartered. The SAC briefing, supported by the PTP, is the basis for a SAC chartering decision.

The FSD briefs the test concept to the TAB, which will judge whether the proposed JT is technically feasible. Based on this assessment, the TAB Chairman will advise the SAC on the technical feasibility of the proposed JT. The SAC will consider both necessity and technical feasibility in their decision to charter the proposed JT. If approved for charter, DD,AW and the Deputy Director, Developmental Test and Evaluation (DD,DT&E) will jointly sign the PTP. After Service and joint community coordination, the JT submits the final document to the JT&E PM who will assess its readiness for signature. It is incumbent on the FSD to keep the AO, JPO Technical Director (TD), and assigned Federally Funded Research and Development Center (FFRDC) representatives in the loop throughout the PTP writing phase. This will help identify potential problem areas that could prevent the JT from proceeding to charter if not corrected early on. Annex L contains the required PTP document and CRE outlines that guide the FSD, staff, and the JTSC to write the PTP.

#### **2.2.3.1 Resource Considerations**

The CRE is a companion document to the PTP that identifies the personnel and financial resources needed to support and execute planned test activities. During the development of the PTP, the JFS team identifies potential test venues, test article requirements, equipment requirements, and expertise needed to execute testing. Concurrently, the JFS team defines the test concept and settles on the scope of testing for the time allotted in a JT. CRE cost or resource requirements must quantify all activities and actions identified during PTP development as part of the proposed JT.

This document defines the resource requirements needed from OSD and the Services in order to conduct the JT. The CRE becomes the foundation for funding throughout the JT's existence and serves as the start point for the FSD's annual verification of test resource requirements.

Cost estimates of the resources in the CRE can be developed by quantifying each in terms of what will be required, where it will be required, when it will be required, how long it will be required, and how it will be provided at the required location. The JFS can accomplish this by decomposing the CRE into specific items, costing each, and then aggregating as required. The JFS should tailor CRE decomposition to the unique requirements of the proposed JT.

The JPO divides CRE development into two general areas: OSD costs and Service costs. OSD costs include contractor support for executing the joint test and test specific costs,

which the JT can characterize as all the actions and activities directly associated with the preparation for and execution of a major test event. Examples of these activities include travel to conduct coordination meetings, test facility support cost, hiring additional data collectors, and instrumentation cost for the test event. Service costs can best be defined as all the actions and activities needed to sustain daily operations to support executing the JT. Examples include paying for the infrastructure necessary to house the JT, office administration costs, and government personnel costs. The OSD and Service costs are then aggregated and incorporated into an overall cost estimate for the proposed JT. CRE development is a continual revision of costs associated with every aspect of the JT. The JFS negotiates that cost with the Services, COCOMs, and OSD to determine what is affordable. The process of developing a PTP and CRE is not an exact science, open discussion with the Services and the JPO is essential to resourcing a successful JT.

#### **2.2.3.1.1 OSD Costs**

The JFS will identify key test events during the development of the test concept and PTP. The majority of these test events will leverage operational training events or use someone else's test facilities; however, every test event has associated costs. In most instances, these costs are paid by OSD but parts of the test, especially costs associated with obtaining military assets (such as aircraft, ships, special instrumentation, and weapons simulators) will be paid by the Services, COCOM, or other sponsoring agency. The FSD, through interface with their Services' operational commands and logistical agencies, can obtain the cost associated with Service-provided resources.

The JFS should obtain cost for usage of range and laboratory facilities from the facility operators. The CRE typically plans the cost to obtain unique JT hardware, software, and instrumentation from the most reliable source available (operational test agencies, laboratories, test and training ranges, test venues, and so forth). The JPO is also a valuable source for cost information.

#### **2.2.3.1.2 Service Costs**

The FSD has to negotiate with the lead Service, COCOM, and/or other DOD agency, as well as the other Services, for JT government personnel and facility support. Once the parties reach a general agreement on the Service support framework, the FSD can then determine what level of additional equipment, if any, the JT needs to execute the test events. The following subject areas offer a brief, but not all-inclusive, discussion of points to consider when developing the Service costs for a JT.

- Location. In general, the recommended location will be at a military installation. The location recommendation should include:
  - Availability of required office and work area facilities
  - Proximity of Service support agencies and equipment
  - Proximity of required test facilities and exercise locations
  - Travel requirements
  - Access to communications
  - Access to special security facilities (if required)
  - Transition of JFS personnel and assets to the JT

- Availability of qualified support personnel
- Operating costs
- Availability of housing and personnel support facilities
- Quality of life considerations
- Facilities. It is unlikely that the facilities used by the JFS would be adequate to house the JT when fully staffed. The JFS facility, however, should be adequate to house the initial JT staff. The FSD should discuss JT facility requirements with the host installation and should include the availability of facilities to support the JT requirements at the recommended location. Facility considerations should also include the requirement for related computer and ADP support and for the storage and handling of classified documents, requirements for classified workspaces, utilities, communications, and logistics support.
- Government Staffing. Estimated staffing requirements will be a major factor in the JT chartering decision. The JFS should base the size of a JT on the tasks required. JT staffing will involve permanently assigned personnel provided through the Service personnel systems. The Service personnel systems can take up to 10-14 months to provide permanent personnel; thus, the JT could operate for roughly half of its 36-month duration before achieving full staffing. It is, therefore, incumbent on the FSD to estimate JT government staffing requirements as accurately as possible and coordinate these requirements with the Services to establish personnel requirements before charter as a JT.
- Subject Matter Expert (SME) Support. There will probably be a need to have military subject matter expertise support during the course of the JT. The JT commonly uses this support to conduct an evaluation of test findings and to develop operationally relevant conclusions. The JFS should estimate SME support requirements in terms of expertise, number of personnel, and estimated timeframes for when they are required.

### **2.2.3.2 Identify Resource Requirements**

Resourcing a joint test is a negotiation between all Services and DOT&E. JTs leverage as much as possible using planned lead Service, COCOM, and/or other DOD agency exercises. Subject matter expertise for evaluating the results comes from the Services. Early and open discussions between the FSD and all parties participating in the test are the key to success. This section discusses further detail of what each party provides.

OSD provides test funding to JTs in accordance with DOD Financial Management Regulation 7000.14-R. OSD funds pay costs incurred for the direction, supervision, and performance of the JT and those that are unique to JT needs. Examples include development of the concept and supporting test plans; procurement, installation and operation of unique instrumentation; transportation, travel, and per diem cost for the JT staff; modification of test articles to obtain test data; data collection, reduction and analysis; and test reporting. Thus, OSD normally funds costs incurred solely from conducting a JT that do not provide long-term military mission-oriented benefits.

The Services are responsible for normal operations and maintenance (O&M) expenditures in support of the JT, such as civilian pay, transportation, travel (for non-JT

and other Service requirements), utilities, facilities, and rents, Service-owned equipment maintenance, furniture, supplies, printing, reproduction, and communications. The Services also provide the support budgets and funds for normal training missions, non-industrial funded aircraft operations, and TDY costs for Service exercise participants and personnel other than the JT staff who are involved in test activities to collect data.

In general, OSD funds test-unique costs, while the Services fund operational, administrative, government civilian salary, and infrastructure expenses. While it is recognized OSD and Service directives establishing the JT may negotiate the actual responsibility for test item cost, there are guidelines for determining cost responsibility for CRE items. Figure 2-10 summarizes normal funding responsibilities.

The Services will provide most, if not all, of the required personnel, equipment, and facilities to support testing efforts of the JT, as well as the support of the JT cadre. Thus, the Services must include these requirements in their resource management planning documents and budget requests to ensure that they will be available to meet the JT needs. The JFS, in coordination with the lead Service, supporting Services, and OSD will develop an estimate of the resources (personnel, equipment, and funds) required to include the expected timeframe and suggested sources for obtaining the required test resources. The JFS will consolidate these estimates into a single document, the CRE. Annex L provides an outline for the CRE.

The FSD should program unique resource requirements by including the cost for such requirements in their CRE. The Army and the Air Force have specific organizations to support and monitor their Service's involvement in JT&E, and have established formal processes to program, manage, and provide resources to their joint test programs.

The Navy and the Marine Corps do not have specific organizations designated to support and monitor their Service's involvement in individual JTs. However, they have established staff responsibilities to facilitate support on a case-by-case basis. Consequently, it is incumbent on the FSD to promote his/her JT to the Navy and Marine Corps decision-makers by illustrating the value added aspect of the expected JT&E products from both a joint and Service perspective. This will provide the greatest potential for personnel resource support from these Services. The FSD should have realistic expectations of the number of Navy and Marine Corps personnel. For more information, the FSD should discuss this issue with the JT&E PM and appropriate POCs from the Services during the CRE development process.

Category	Expenses	OSD	Services	Category	Expenses	OSD	Services
1. JTD & Staff	A. Travel	X		5. Test Support and Resources	A. Hardware/ADP	X	
	B. Per Diem	X			B. Range Costs	X(2)	
	C. Civilian/Military Pay		X		C. Instrumentation (Unique)	X(2)	
	D. Personal Computers	X(1)	X		D. Surrogates		X
	E. Office Copier		X		E. Site Preparation	X	
	F. Office Equipment		X(1)		F. Base Operating Support		X
	G. Supplies		X		G. Player Communications Support		X
	H. Office Facilities		X		H. Player Vehicle Leasing		X
	I. Technical Advisors (TAB/TAG) (TDY)	X			I. Photo/Visual Support	Negotiable	
	J. Other Training-Tech, Staff (TDY)		X		J. OPSEC Survey/Risk Management		X
	K. Reports, Printing, and Production		X		K. Environmental Studies	X	
2. Contractor	A. Test Planning, Tech Support	X			L. Player Supplies		X
	B. Simulation/Model	X			M. Red/Blue Force Travel Per Diem		X
3. Training	A. Training for Data Collectors and White Collectors	X(1)			N. White Force Travel/Per Diem		
	B. Test Unique Doctrine and Tactics Training for Red Players	X(1)			O. Test Vehicle Modification and Transportation	X	
	C. Tactics Training for Blue Players		X		P. Surrogate Modification and Transportation	X	
4. Facilities	A. Buildings-Construction, Lease, Alteration		X(1)		Q. Flying Hours		X
	B. Utilities		X		R. Fuel		X
					S. Parts and Transportation		X
					T. Munitions		X
					U. Transport of Munitions	X	
					V. Data Collection, Analysis, Store	X	
					W. Industrial Fund Flight Hours	X	
					X. Simulation Costs, Modifications, Transportation		X(3)
<p>1. Existing and suitable Service resources, facilities, etc., that can be made available will be provided; however, additional costs for JT&amp;E program requirements and resources should be negotiated with OSD.</p> <p>2. Existing and suitable Service range/test facilities that can be made available will be provided; however, any reimbursement costs will be funded by OSD.</p> <p>3. Existing and suitable Service simulation capabilities that can be made available will be provided; however, other additional costs including modification, transportation, and maintenance will be funded by OSD.</p>							

**Figure 2-10. Responsibilities for Supporting JT Activities**

No matter what form the Service support agencies take, the JT should note that the processes for recognizing, coordinating, and providing the required resource support could take in excess of a year. A JT's reality is that the full complement of Service resources may not be available for the first 10-14 months of a 36-month test and evaluation. It is imperative the JT identify and submit resource requirements to the Services in the proper formats immediately upon charter.

#### **2.2.3.2.1 Request for United States Army Resources**

The Army Test and Evaluation Command (ATEC), in coordination with the Deputy Chief of Staff, G8, is the overall Army manager and resource provider for JT support. ATEC chairs an Army-wide committee, the Test Schedule and Review Committee (TSARC), which provides centralized management of Army resources to support test activities, except for Army personnel assigned as part of the JT&E test directorate staff. FSDs should submit requests for permanent party Army personnel to ATEC HQ during the JFS. The formal document for submitting requests for Army resources to the TSARC is the Outline Test Plan (OTP). The TSARC working group meets in January, March, July, and September to review and approve or disapprove requests for utilization of Army assets in support of test activities. The purpose of the TSARC is to maximize the use of limited resources and minimize the impact of test activities



on operational units and their readiness. Army Regulation 73-1, Test and Evaluation Policy, Chapter 9 contains the guidelines and procedures for requesting Army resources. TSARC responsibilities include:

- Reviewing and recommending coordinated OTPs for inclusion in the Five-Year Test Program (FYTP)
- Ensuring adherence to the one-year notification requirement for resource commitments or enforcing compliance with the Out-of-Cycle policy
- Reviewing and coordinating resources to support T&E
- Resolving conflicts between user test requirements and other missions

The JFS may submit OTPs at any time during the year. (ATEC can provide format and/or instructions.) OTPs should contain requisite information on support requirements available at the time of submission. Once submitted, ATEC updates OTPs through the TSARC process in January, March, July, and September of each year as revised OTPs. ATEC submits OTPs for TSARC consideration at least one year before the first resource is required to allow resource planning against approved OTPs. ATEC will process OTPs that do not provide at least one year between TSARC approval and first resource commitment as out-of-cycle OTPs. Forward out-of-cycle OTPs to the TSARC under a cover letter signed by a general officer stating justification for the requested policy exception. Training for OTP creation and submission is available through ATEC, CSTE-OP-TE.

#### **2.2.3.2.2 Request for United States Air Force Resources**

Air Force Instruction 99-106, *Joint Test and Evaluation*, provides guidelines and procedures for Air Force participation or support of JTs directed by OSD. It describes the responsibilities, planning, and execution for JT participants. The Director of the Air Force, Test and Evaluation (HQ USAF/TE) sets Air Force policy for JTs and is the office of primary responsibility (OPR) for Air Force participation in the JT&E Program. The Air Force Joint Test and Evaluation Program Office (AFJO) assists HQ, USAF/TE in the execution of the JT and is the Air Force manager for the JT&E Program. Forward all requests for JT dedicated manpower support to AFJO for processing and HQ USAF/TE validation. AFJO is the AF JT&E action office and receives specific support requests. The AFJO, as the Air Force lead for all JT&E Program activities, will:

- Manage Air Force (AF) resources that support JTs (personnel, equipment, and facilities)
- Coordinate USAF funds for facilities
- Ensure AF resource support for AF nominations and feasibility studies
- Provide guidance for AF nomination submissions and feasibility studies
- Review all AF nominations and forward viable candidates through the Air Force Test and Evaluation Program (AF/TEP) to the PC

The formal document for requesting resources from the Air Force to support joint tests is the Test Resource Plan (TRP). The TRP is the plan that JFSs and JTs use to identify the test resources from the Air Force, which is also Annex G of the PTP. The TRP is a living document. As the joint test changes so will the TRP to reflect the

updates, as well as the necessary coordination with AFJO and Air Force organizations [major commands (MAJCOMs) and/or field operating agencies (FOAs)] providing support to the joint test.

JFSs must coordinate with AF/TE and AFJO as well as any other Air Force organization that will provide test resource(s) to the JT. JFSs must establish MOAs and/or Memorandum of Understanding (MOUs) with the responsible Air Force organization providing the test resource(s) to support a JT. No test resource is a guarantee without the proper coordination agreements.

A generic outline for the TRP may include the following:

- manpower requirements for joint test (may include specialty and/or special experience)
- aircraft requirements (flying hours, type of aircraft)
- training requirements
- support requirements for joint test
- range support needed for the execution of joint test
- exercise support needed for the execution of joint test
- any other test resource from the Air Force that may be relevant to the joint test

#### **2.2.3.2.3 Request for United States Navy Resources**

The principal POC for JTs is located in the Office of the Director of Test and Evaluation and Technology Requirements (N091), specifically in the T&E Division (N912). The JT&E POC who provides liaison and interface with OSD on JT&E Program policy and resources issues is N912D2. In contrast to the Air Force and Army, the Navy selects and delegates authority and responsibility for JTs on a case-by-case basis.

For Navy support of a specific JT, N091 will be responsible to staff the selection of an appropriate sponsor from the Chief Naval Operations (CNO) staff organization, maintain oversight, and will assign a Test and Evaluation Identification Number (TEIN) and a CNO priority. The CNO staff sponsor is responsible for staffing the selection of a field-level Navy agency to support the JT. The N912D2 and CNO sponsor share responsibilities and staff actions for all JTs. This provides a team approach in which the JT POC is knowledgeable concerning the entire spectrum of JT activity. The CNO sponsor provides specific functional expertise, and the field-level sponsor supports the JFS or JT. There are no specific Navy directives relative to obtaining resources to support a JT. JFSs must request and arrange for resource requirements on a case-by-case basis through the CNO staff or resource sponsor and field level support authority. N091 is responsible for obtaining and assigning the TEIN and the CNO priority and for staffing the selection of the CNO staff sponsor. The CNO staff sponsor is responsible for staffing the selection of a resource sponsor and for providing the field-level structure for supporting JTs.

The field-level sponsor is responsible for staffing and providing resource requirements for the JT, to include request for billets and the requisition of personnel.



Operational Test and Evaluation Force (OPTEVFOR) is the independent operational test agency for the Navy and is responsible for the operational test and evaluation of weapons systems, ships, aircraft, equipment, procedures, and tactics, when required. OPTEVFOR is a valuable source of testing expertise and assistance to the JT. The JT&E Program Office can provide contact information.

#### **2.2.3.2.4 Request for United States Marine Corps Resources**

The principal Marine Corps POC for JT&E is located in the office of the Commanding General, Warfighting Requirements, Marine Corps Combat Development Command (MCCDC). The Marine Corps POC will initially coordinate all requests for JT&E Program support. Since the Marine Corps participates in and provides support for JTs on a case-by-case basis, the POC will designate a Marine Corps lead agency for each JT. This lead agency could be a Headquarters Marine Corps staff section or a specific Marine Corps command. The lead agency will subsequently determine the level of support that they can provide. At a minimum, this would include an SME to provide Marine Corps perspective, expertise, and liaison. The lead agency will also coordinate with the Marine Corps POC if they identify the potential for support outside their own organization. (The JT&E Program Office can provide contact information.)

### **2.2.4 Reviews, Briefings, and Deliverables**

#### **2.2.4.1 Reviews and Briefings**

##### **2.2.4.1.1 Technical Advisory Board Reviews**

Chapter 1 addresses overall TAB composition and membership. The primary purpose of the TAB is to support the SAC chartering recommendation by reviewing and evaluating the feasibility and execution risk of the proposed JT. Feasibility indicates the JT can adequately address the test issues (viable scope, focus, test concept, test objectives, analysis and evaluation plan, and implementation strategy). The TAB will meet twice during the seven month JFS to review the proposed test concept. TAB I will review the JFS problem statement and test issues. At the conclusion of TAB I, each JFS will be assigned one or two mentors from the TAB representatives. The chairperson of the TAB will select mentors based on their availability, interest-area, and expertise. The responsibility of the mentors is to provide technical recommendations to the JFS during the conduct of the feasibility study. Due to the short timeframe of a feasibility study with only two opportunities to present feasibility and technical risk to the TAB, mentors ensure the study is given advice and clarification based on TAB guidance and direction. Mentors will provide feedback to the TAB membership on the progress and technical risk to the proposed test concept and design during TAB II. At the conclusion of TAB II, the chairperson will provide a technical assessment of each JFS to the SAC membership.

The JPO Technical Director will provide the TAB benchmarks before each TAB meeting. The JFS will be required to develop a briefing in accordance with the TAB benchmarks. The JPO requires an electronic read-ahead of the briefing five working

days prior to the TAB. Pre-briefs to the TAB membership is not required or recommended other than to meet with and keep assigned TAB mentors aware of the progress of the JFS.

FSDs can communicate directly with their appointed TAB mentors via email or informal discussions but should schedule at least one face-to-face formal meeting with their TAB mentors prior to TAB II. FSDs should follow the below guidance for scheduling formal TAB mentor sessions.

1. Notify the JPO-assigned AO whenever a formal TAB mentor session has been coordinated and scheduled. The JPO-assigned AO will ensure the JPO TDs, JPO-assigned FFRDC representative, and JTSC team lead is aware of the meeting details (date, time, location).
2. At least five working days prior to the scheduled meeting, the FSD should send any changes to the problem statement, test issues, and/or sub-issues presented at TAB I to the JPO-assigned AO and both JPO TDs for review.
3. As a minimum, the FSD will invite the AO, JPO-assigned FFRDC representative, and both TDs to participate in all formally scheduled TAB mentor sessions (and/or copy on email communications). These formal sessions should be coordinated with all parties to ensure maximum attendance but, if this is not possible, then the TAB mentor's schedule takes precedence as long as the JPO-assigned AO and the JPO-assigned FFRDC representative or one of the JPO TDs can attend. The AO will promulgate minutes for formal TAB mentor sessions following the meeting and will document any proposed changes to the problem statement, test issues, or test concept for review by the AO and TDs before inclusion in the draft PTP or TAB II brief.
4. The FSD may conduct a formal TAB mentor session for a single TAB mentor or schedule both TAB mentors in a single session depending on TAB mentor availability and their own preferences. It is usually preferred to conduct a single session with both TAB mentors present to facilitate interaction between the TAB mentors and to consolidate travel requirements.

FSDs may also conduct informal TAB mentor sessions to keep them informed of JFS progress (via email or in person). The FSD will keep the AO informed of these meetings and provide the AO with the results of these meetings. If during an unofficial mentoring session, the FSD feels the inputs provided conflict with previous TAB guidance or differ significantly from JTSC guidance, the FSD should inform the AO and both TDs immediately for resolution.

#### **2.2.4.1.2 Senior Advisory Council Review**

In January, the SAC reviews the nominations and produces a prioritized list of nominations for direction as JFSs. In August, the SAC reviews the JFSs then recommends and prioritizes which JFSs to charter as JTs. The SAC recommendation for approval of a JT represents Service and Joint Staff concurrence with the candidate's necessity and feasibility and is an initial commitment that Service support will be provided. The SAC priority is indicative of the importance of the JT to DOD in the event that budget reductions occur and alternative considerations are required. DD,AW chairs the SAC.

### 2.2.4.2 Written Deliverables

There are three main written deliverables in a JFS. See table 2-1 for the schedule timelines.

**Table 2-1. JFS Deliverables**

DOCUMENT OR REPORT	RESPONSIBILITIES	SUSPENSE
JFS Monthly Report	Signed by FSD	Due to JT&E PM 10th of each month
JFS Lessons Learned Report	Reviewed by AO, TD, and FFRDC Signed by FSD	1 <sup>st</sup> draft due 10 working days after the SAC Final signed 20 working days after the SAC
Program Test Plan (PTP) – Phase 1	Reviewed by AO, TD, and FFRDC	1 <sup>st</sup> draft due 40 working days before the SAC 2 <sup>nd</sup> draft due 15 working days before the SAC If chartered, refer to the JT Deliverables Table for PTP – Phase 2 (chapter 3, Table 3-1) If not chartered, reference the JFSR (below)
Joint Feasibility Study Report (JFSR) <u>IF NOT</u> CHARTERED	Reviewed by AO, TD, and FFRDC Signed and released by JTD Approved by JT&E PM	Red Team review 10 working days after the SAC 1 <sup>st</sup> draft due 20 working days after the SAC Final signed 40 working days after the SAC

#### 2.2.4.2.1 Joint Feasibility Study Monthly Status Report

The FSD will provide a monthly status report to the JT&E PM through the assigned AO via email no later than the close of business on the 10th of each month, or the next business day if the 10th falls on a holiday or weekend. Information to be included in the report is updated financial data, significant accomplishments for the past month, events scheduled for the next quarter, documentation status, issues or problems, briefing schedule for the next 90 days, and FSD comments. These reports keep JPO informed about how the JFS is progressing, what the problems are, where the FSD needs OSD or Service help, and JFS recommended courses of action.

#### 2.2.4.2.2 JFS Lessons Learned Report

The JFS lessons learned report serves three purposes. First, it provides the JT&E PM with the FSD's assessment of the JFS, documents lessons learned for consideration in the organization and management of future JFSs, and provides new FSDs and the Director, JT&E-Suffolk with information that will lead to more efficient and effective JFSs. In the preparation of the lessons learned and recommended actions, the FSD should separate those that are systemic from those that are new or unique to add emphasis to both types. Feedback on problems and solutions tried (successful or not) should be included. Annex L provides the lessons learned outline and format.

#### 2.2.4.2.3 Program Test Plan or Joint Feasibility Study Report

Preparation of the PTP should start early and continue in parallel with completion of JFS activities. Some of the report is boilerplate that the JFS can and should develop

as early as possible. Complete sections of the report as the JFS collects and analyzes information, and reach conclusions relative to the necessity and feasibility of the proposed JT. As discussed in previous sections, the PTP is the main written deliverable in a JFS. If not chartered, the PTP becomes an annex to a Joint Feasibility Study Report (JFSR).

### **2.2.5 Outreach Support**

Each JFS is responsible for the outreach effort for their feasibility study. The JFS outreach effort should focus on garnering support and establishing the necessity of the proposed JT. A JFS is strongly discouraged from creating any kind of outreach products because a proposed JT may be refocused before it is chartered, making the JFS products unusable. If a JFS does decide to release any sort of product, the JPO must approve it before release. Refer to annex K for more information concerning the JPO outreach program.

### **2.2.6 Transition to a Joint Test**

Each JFS should anticipate being chartered as a JT and plan accordingly. There will be substantial, time-consuming demands on the JTD during initial phases of the JT, so thorough planning during the JFS is paramount. Planning factors should include:

- Products: completing the PTP and finalizing the CRE
- Contracting actions: closing out JFS task and awarding new JT task (see sections 2.2.7.1 and 2.2.7.2)
- Facilities: expanding infrastructure to accommodate JT team bed-down
- Schedule: identifying short term tasks, milestones, essential travel
- Staffing: stressing technical continuity, hiring timing and sequence, personnel actions (see section 2.2.6.2)
- Training & teambuilding: providing JT&E Program Orientation, JT training

#### **2.2.6.1 JT Charter Letter**

If recommended by the SAC, the JPO will draft a chartering letter and DD,AW will sign the letter immediately following the charter decision. The charter letter prescribes the JT mission and responsibilities, and defines the scope and boundaries for the newly established JT. It also describes specific coordination items to the JTD consistent with the delineation of responsibilities provided by DOD Instruction 5010.41.

#### **2.2.6.2 Personnel**

During the JFS, the Services will assign most government personnel on a TDY basis. Obtaining dedicated Service personnel for the JT phase can be frustrating. Service personnel systems operate on different cycles, and some can take more than a year to provide permanent change of station (PCS) personnel. The JT&E may have to operate for roughly one-half of its life cycle before full staffing of Service personnel occurs. To mitigate this situation, the FSD should initiate personnel actions with the appropriate Service representatives to identify requirements and provide required documentation prior to chartering. The Army utilizes the OTP and the USAF uses the TRP to request and manage personnel, equipment, and funding requirements for test activities. The U.S. Navy (USN) and U.S. Marine Corps (USMC) do not have a standardized method for the types of requirements. Coordinate requests for USN and USMC requirements through

the appropriate Service POC. Annex L contains more information concerning government personnel management.

### **2.2.6.3 Transition of JTSC Support**

Dedicated support from the JTSC will end after the charter decision. The JTD must coordinate with the Director, JT&E-Suffolk for any transitional support.

## **2.2.7 Closedown of the Joint Feasibility Study**

For those feasibility studies not approved for charter as a JT, closedown is the last phase of the JFS and is usually the most demanding in terms of the amount of work the JFS must accomplish within the time available. The FSD must initiate the development of a simple closedown plan early in the JFS to identify actions that must be accomplished and establish a schedule for their accomplishment in a logical order. These actions include the preparation and coordination of the JFSR, transition of personnel, termination of contracts and support agreements, preparation of efficiency reports, security out-briefings, awards and recognition, the transfer of property, and transfer of fiscal accounts, if applicable. Since a JFS normally does not have many government personnel on its staff, it is likely that personnel related closedown actions would be minimal. Activities relative to finances and Service owned property comprise the majority of close down actions.

### **2.2.7.1 Contracts and Support Agreements**

Detailed information concerning contract close outs can be obtained from the JPO. The FSD must close out all contracts and support agreements established by the JFS. Some may require special actions associated with the close out. The JPO can assist by providing guidance in any contract negotiations. One of the actions required in contract close out is a review of the contract relative to completion date, level of effort, and scope. The FSD must evaluate the contract in terms of remaining JFS requirements, available resources, and level of effort to accomplish tasks, and the funding available to complete the work. If it is determined that no additional support is required, then the FSD must initiate action to close out contracts. The FSD must also take the necessary actions to terminate all support agreements with host-installation and supporting organizations and agencies.

### **2.2.7.2 Close Out of Fiscal Accounts**

Even after a JFS closes its doors, the cleanup of financial matters will continue. Late billings and final contract dispositions create requirements for funds after the disestablishment of the JFS. The JT&E PM will provide fiscal assistance relative to close out activities if the chartering of the proposed JT is unexpected. If the JT&E PM expects chartering of the JT, the cleanup of JFS bills and funding will transfer to the JTD. Additional information concerning fiscal management is contained in Annex D.

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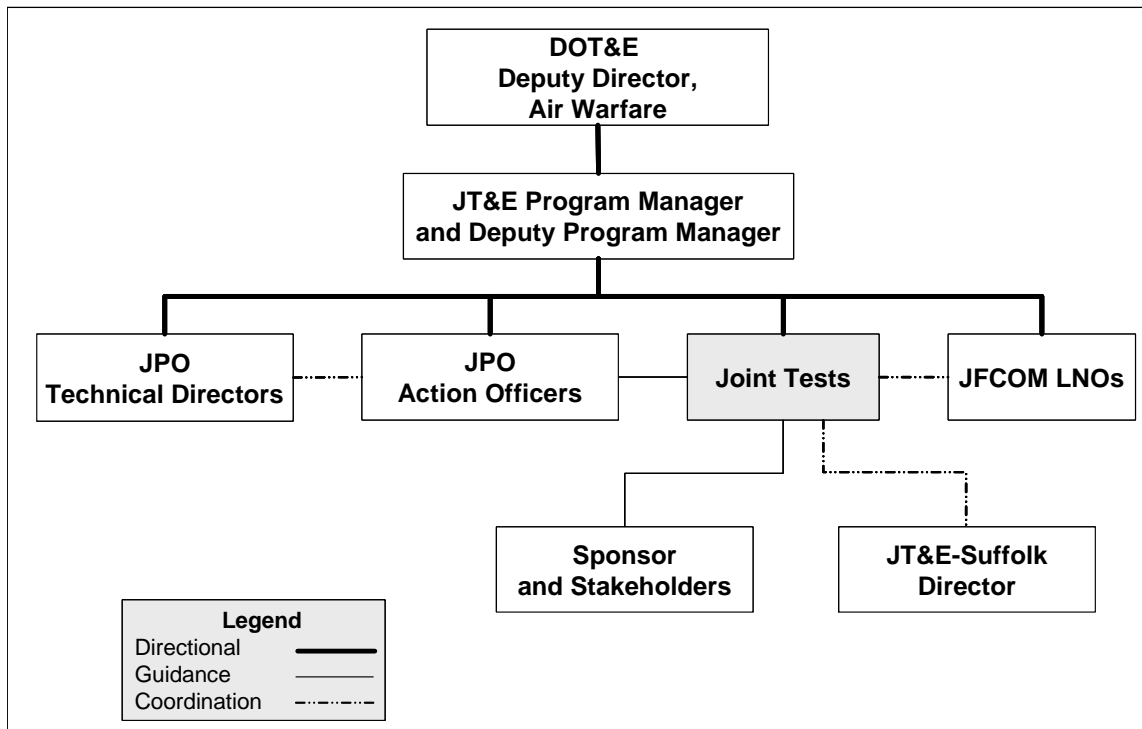
## CHAPTER 3 JOINT TESTS

### 3.0 Introduction

This chapter provides consolidated guidance, direction, information, references, and procedures to Joint Test Directors (JTDs) and their staffs with respect to conducting a chartered joint test (JT). It addresses the functional and organizational requirements the JTD must consider in establishing and organizing the JT upon charter, as well as actions required for detailed test planning, execution, analysis, reporting, and test product transition and closedown actions. The joint test and evaluation (JT&E) Program Office (JPO) expects a chartered JT to execute the program test plan (PTP) developed during the Joint Feasibility Study (JFS). It is important that the JTD and every member of his staff be familiar with the contents of the PTP, this handbook, and associated annexes.

### 3.1 Establishing and Organizing the Joint Test

This section explains the relationship of the JT to the JT&E Program and describes those actions the JTD must accomplish to obtain facilities, personnel, and administrative support. Figure 3-1 provides the operational chain of command for a JT. This section also addresses the functional and organizational requirements for establishing and organizing the JT. The Feasibility Study Director (FSD) should have established and coordinated initial JT requirements for facilities and personnel.



**Figure 3-1. JT Organizational Relationships**

#### 3.1.1 Setup of the JT

One of the initial tasks of the newly appointed JTD will be to contact the lead and/or participating resource sponsor and other supporting Services, combatant commands



(COCOMs), Department of Defense (DOD) agencies who have agreed to provide support and the JPO-assigned action officer (AO) to discuss the transition of JFS personnel and assets to the JT. JTDs must establish liaison with the points of contact (POCs) at the Service headquarters and OTA levels, as both are likely to be involved in providing personnel and resources. The JTD should seek documentation of Service support and establish POCs within subordinate commands and agencies. The JTD should initiate a memorandum of agreement (MOA) or inter-Service support agreement (ISSA), through the Service POC, which delineates Service support responsibilities.

The FSD will transition all JFS documents to the JTD. Most of the planning and coordinating activities that occurred during the nomination and JFS phase will be included in the PTP. The JTD should also review the JFS lessons learned report to identify potential or continuing problem areas. The following paragraphs provide an overview of documents the JTD must acquire.

#### **3.1.1.1 Nomination Package**

The nomination package contains the initial description of the JT in terms of the background, problem, concepts, issues, objectives, and their expected utility and impact on joint operational capabilities. It is very likely that the focus and intent of the nomination package will have changed during execution of the JFS; however, it still provides relevant information concerning intent and purpose. This package identifies an initial list of anticipated users of the test findings, conclusions, and recommendations. Further, the nomination package provides the JTD and staff with an understanding of the joint problem and test issues as submitted by the nominating command or agency.

#### **3.1.1.2 SAC and TAB Meeting Minutes**

The minutes document the results of the Senior Advisory Council (SAC) and Technical Advisory Board (TAB) meetings. The SAC recommendation to charter a JT represents their concurrence with the joint problem and issues and the necessity to execute the proposed JT. The TAB recommendation to the SAC represents their assessment that a proposed JT is technically feasible and the overall test concept is executable.

#### **3.1.1.3 Program Test Plan**

When finalized, the PTP is the primary management plan for executing the JT. The PTP documents the necessity and feasibility of the JT, its test scope, concept, methodologies, limitations, risks, and resource requirements. The PTP also contains the test schedule, milestones, and test planning activities and includes information relative to the location of the JT team, facility requirements, and staffing of the JT. It defines and formalizes what actions to accomplish, who is responsible for the required tasks and activities, when and where to conduct the test activities or events, what resources will be required, and how each of the planned JT activities will be accomplished. The JT's core staff should be familiar with the PTP and related documents. The JTD and core staff must conduct training of all new personnel to convey knowledge about the JT problem being addressed, test issues, test concept, and dendritic breakdown, and to establish an understanding of why the JT must be conducted in a rigorous, detailed manner. This includes



understanding the purpose of measures, data collection requirements and methods, and the test rigor required of a JT.

#### **3.1.1.4 Work Breakdown Schedule**

The JFS developed a draft work breakdown schedule (WBS) for the JT that reflects the test event schedule, administrative requirements, and assumed staffing levels. The JTD should conduct periodic milestone reviews and modify the WBS to account for changes in test planning or scheduled test venues.

#### **3.1.1.5 Charter Letter**

This letter contains the authority for the JTD to proceed with staffing, test planning, and execution of the JT. The charter also provides authority for the JT to establish direct contact with participating agencies to obtain the required personnel and facilities support. The charter letter does not contain details related to executing the JT since this information is contained in the PTP.

#### **3.1.1.6 Archived Documents**

The JFS and other JTs produce various documents that can be useful to the JTD. These documents include charter letters, directives, PTPs, detailed test plans (DTPs), test event reports, final reports, and lessons learned reports. While some of these documents may not directly relate to the subject area of the chartered JT, many challenges the JTD will encounter are systemic and may have been addressed and reported by previous JTDs. Of specific interest will be the lessons learned report that contains problems encountered, recommended improvements, and corrective actions. These documents are available to all JTDs and their staffs. It may be beneficial for the JTD to contact the JT&E library, located at JT&E-Suffolk, for access to the electronic library files. It is also advisable to contact the AO assigned to the JT for advice regarding which documents may be helpful to the JTD and other members of the JT.

### **3.1.2 Organizing the JT**

The JTD is directly responsible to the JT&E Program Manager (PM) for the organization, management, and execution of the JT. The chartering letter authorizes the JTD to establish direct communications with lead Service, COCOM, and/or other DOD agency to obtain required assistance or support. The following provides an overview of activities the JTD must perform.

#### **3.1.2.1 Establish Program Security**

All JTs may involve access to, or the production of, sensitive or classified materials. To prevent compromise, the JTD must establish security procedures that include establishment of controlled access areas; the positive identification and control of personnel; the receipt, storage, transmittal, reproduction, traceability, and destruction of classified documents; communications and automated data processing; automated data processing (ADP) security; control of classified containers and container combinations; personnel security clearances; and facility security. Whenever a government or contractor person permanently departs, the JT will complete an out brief checklist and send it to the JT&E Security Manager. In the event of an individual holding a Top Secret

and/or Sensitive Compartmented Information (SCI) billet, the JT will also send the out brief checklist to the National Assessment Group (NAG). Annex H provides detailed information relative to establishing adequate security procedures.

#### **3.1.2.2 Obtain Qualified Staffing**

The JFS should transition into the JT's core staff. The JTD should recognize that several months might pass before additional personnel arrive. In such cases, particularly if the required skills are critical during the initial stages of the JT, the JTD should plan to acquire contractor personnel with requisite skills as early as possible when developing the performance work statement (PWS). The JTD should also work closely with appropriate Service representatives for all government staffing requirements. Annexes D and E contain additional information for obtaining contractor and government personnel.

#### **3.1.2.3 Obtain Funds**

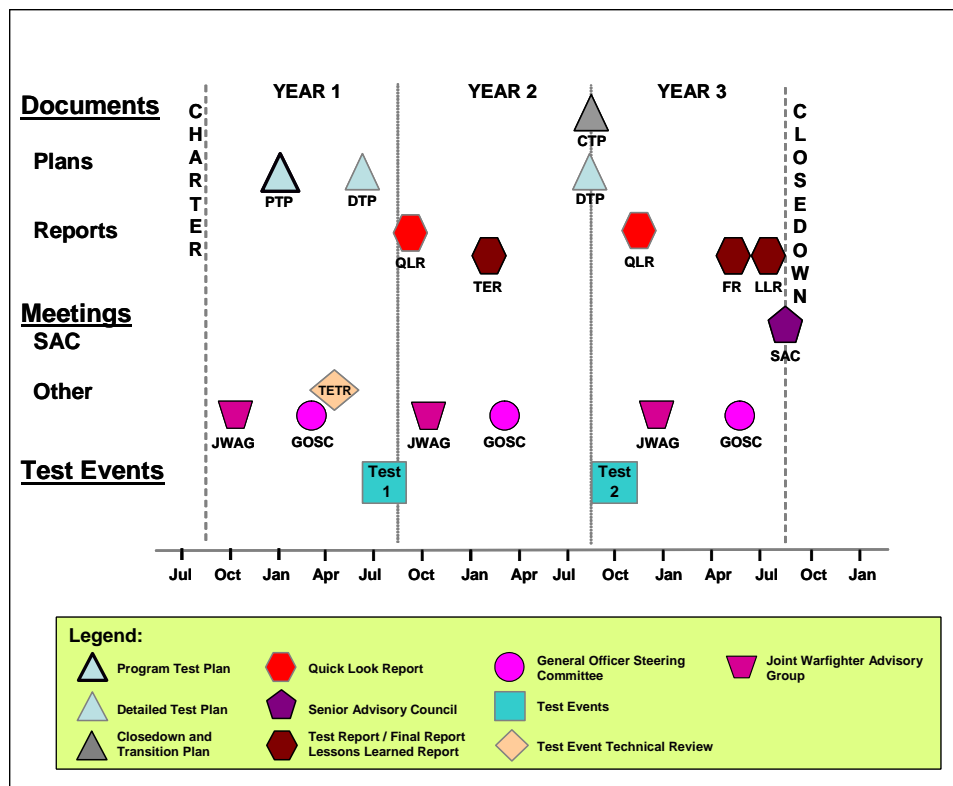
Funding for the JT will be in accordance with DOD Instruction 7000.14, *DOD Financial Management Policy and Procedures*. The JT&E PM will disperse funds to the JT that pays for direct test costs. The Services will provide funds for the JT's daily operations. JTDs should address questions relative to the funding of any JT activity or support to the JT&E PM. For additional information regarding funds accountability, obligations of fiscal year funds, and tracking of expenditures, the JTD should contact the JT&E Deputy PM.

#### **3.1.2.4 Obtain Adequate Facilities**

The charter letter stipulates the location of the JT. The lead Service, COCOM, and/or other DOD agency is responsible for providing the JTD with facilities, including building(s), furniture, and administrative equipment such as computers and associated communications links (phones, facsimile, NIPRNET, SIPRNET, etc). During the JFS, the FSD should have negotiated with the host installation to secure adequate facilities for the fully staffed JT. Upon charter, the JTD should coordinate with the lead Service to formalize JT requirements.

### **3.2 Management of JT Activities**

The PTP contains an initial test schedule of activities based on the approved test concept. The initial PTP test schedule includes major milestones such as Joint Warfighter Advisory Group (JWAG) meetings, General Officer Steering Committee (GOSC) meetings, and Test Event Technical Reviews (TETR), and other planning events. The JTD should also include financial resource reviews, test plan working group (TPWG) meetings, in-progress reviews (IPRs), modeling and simulation (M&S) integration meetings, and test rehearsals as necessary to ensure effective management of the JT. The JTD must coordinate any major changes to the PTP test schedule with the JT&E PM via the assigned AO. Figure 3-2 provides an example of a JT schedule.



**Figure 3-2. Example Test Schedule**

### 3.3 Validate or Refine the JFS Coordination Chain

In the process of performing the JFS, the JFS team established a Service and joint agency coordination chain, identified the points of contact and determined potential test product transition to customers. In most cases, the coordination chain for the JTD will be similar to that developed during the JFS. The JTD should verify the JFS coordination chain in terms of currency and applicability, and update the coordination chain for JT documents and test products. This will allow the JTD to establish current ongoing relationships with Service POCs and their organizations.

### 3.4 Executing the Program Test Plan

It is the responsibility of the JTD to execute the JT as directed by the Deputy Director, Air Warfare (DD,AW) under the guidance of the JPO. The JTD is ultimately responsible for the successful completion of the JT, on time, within budget, delivering useful and timely test products to the warfighter. It is important for the JTD to begin coordination for the use of test resources, such as ranges, facilities, or exercises as early as possible after charter. The JTD will draft and coordinate necessary MOAs to secure access to necessary test venues or for necessary personnel, units, forces, instrumentation, data collectors, or other test equipment required to conduct test events. The JT&E PM will approve all MOAs prior to JTD signature.

If unforeseen events require changes to the PTP or test schedule, the JTD must brief the JT&E PM on the proposed changes, provide justification for the changes, address impacts to the consolidated resource estimate (CRE), and include any changes to expected test products. The

assigned AO and JPO TD will review all requested changes to ensure the changes are consistent with the charter letter and not significantly affect the test concept. For example, for a baseline-enhanced or sequential test concept, subsequent test events are usually dependent upon the results of previous test events. If this is the case, then the review must consider the time between test events before recommending approval for any requested changes to scheduled test events. Typically, a minimum of 6 months (ideally 8 months) is required between test events to ensure the JT meets this requirement. If the subsequent test events are independent then the review must consider the resources the JTD has available to conduct simultaneous test planning and test analysis. After the assigned AO and JPO TD reviews the requested changes, the AO will publish written documentation, signed by the JT&E PM, to substantiate the approved changes.

If a new test venue is required, the JTD should seek synergistic opportunities to collect realistic and objective data that pertains to the resolution of the JT's problem statement and test issues. These opportunities include, but are not limited to, leveraging data from other JT&E activities as well as other DOD activities that are collecting or could potentially collect data or information of use by the JT. The JTD will ensure that any such synergistic leveraging meets the data and information quality and integrity standards necessary to resolve the test issues objectively. Impartiality, objectivity, and sound methodology for the data collection, validation, reduction, and analysis of pertinent data are paramount considerations in the conduct of the JT.

The PTP also contains the approved CRE that was coordinated with the sponsor and participating Services that lists the test resources and costs required to execute the JT. The JTD must ensure coordination with the Services for Service-provided JT resource requirements. The JTD must revise the CRE, as necessary, based on the results of any approved changes to the test schedule or test venues. The JTD must brief revisions to the CRE to the JT&E PM and to the Services for Service-provided resources. The JTD is required to review and revalidate Service resource requirements at least annually.

### **3.5 Test Event Planning and Execution**

The JTD must direct the efforts of the JT team towards the planning and execution of the test events as delineated in the PTP. This section provides an overview of those activities and actions required to plan and execute a test event.

#### **3.5.1 Test Event Planning**

JTs conduct interrelated and interdependent test events to address and resolve a joint problem by answering specific test issues. Each test event requires planning that centers on finalizing and coordinating test event activities in terms of how and where they will be accomplished, refining the specific Service and JT resource requirements; explicitly delineating data collection requirements, data collection methods, instrumentation needs, and data management functions; and refining analysis and evaluation methods. Initial test event planning necessary to satisfy these requirements is contained in the PTP. The JT uses a TPWG to conduct additional test planning for each test event. The TPWG focuses test event planning on the data collection requirements for the test event. The TPWG facilitates coordinating test activities across all the organizations participating in a test event, especially when the test utilizes a training exercise as the test venue. The result of the TPWG should be

a DTP that contains all the specific coordination and actions required to conduct a specific test event. The JTD or JT technical director (TD) normally chairs the TPWG.

### **3.5.1.1 Develop a Detailed Test Plan for Each Test Event**

The DTP is the execution document required for each planned test event (field test, mini-test, or simulation test) and provides additional details not addressed in the PTP. The DTP is required to contain an integrated data requirements list (IDRL) specific to that test event, based on the TDRM and specific data collection, management, and analysis procedures. As an execution document, the DTP is a stand-alone document that addresses the actions participants must accomplish in preparation for, during, and after a test event. Of particular importance are test support MOA or memorandums of understanding (MOUs) between the JTD and those Services and agencies providing necessary test support.

A high quality DTP ensures the JT will minimize the risk of encountering problems that affect the quality of data collected. Detailed test event planning is the key to producing a good DTP, which guides the JT teams' efforts to collect required data under realistic operational conditions and ensures the collected data are accurate and complete. Detailed test event planning must identify and provide for the acquisition of adequate, calibrated data collection instrumentation and test support resources, the training of all data collector participants, sufficient pre-test runs of instrumentation and data collection procedures, responsive quick-look analysis of the data, and the flexibility to adjust to unforeseen circumstances or changing situations.

The JT will also draft and submit risk reduction event (RRE) plans and after action reports (AARs) to the JPO for all RREs. The RRE plan should follow the format for a DTP and contain the same level of detail.

#### **3.5.1.1.1 Test Design**

The DTP is an extension of the PTP and provides the details of what, how, who, where, and when aspects of the planned test event execution. Every member of the test planning team must fully understand all aspects of the test event. This includes command and control (C2) and intelligence, surveillance, and reconnaissance (ISR) architecture, location of data collection nodes, potential weather effects on test conditions, and the impact electronic warfare techniques may have on data collectors and test participants. The JT must consider all of these and others factors throughout test planning.

#### **3.5.1.1.2 Test Scenario**

Test scenarios define the context in which JTs will collect data. The JT must define a test scenario for each test event to ensure operational realism. When the JT is using a training exercise for their test event, the exercise manager usually dictates the scenario. Participation in the exercise planning conferences can often result in a test scenario that maximizes data collection opportunities without negating the training requirements of the exercise sponsor. The scenario must include geographic locations, descriptions and lay downs of friendly and hostile forces (to include their

weapon systems), and a description of all planned operations and operational objectives. Planning must include detailed timing considerations for all military units and equipment. Definition of the test scenario must be coordinated with the supporting Services, as they will judge the credibility of the test results by the credibility of the test scenario.

#### **3.5.1.1.3 Resource Requirements**

Test resource requirements (military units, personnel, facilities, and equipment) are identified for inclusion in the outline test plan (OTP), test resource plan (TRP), or other applicable Service plan for each of the test events developed during the JFS and are submitted to the Services for inclusion in their resource management planning upon charter, and updated annually as required. The DTP development team must review these resource requirements to verify that all required resources have been included. If not, the JT must revise the resource requirement submissions to the Services. The TPWG must then coordinate directly with the organizations that will provide the resources and develop MOAs or Program Introduction Documents (PIDs) to ensure required resources will be available.

#### **3.5.1.1.4 Data Collection Instrumentation Requirements**

The JT must confirm and schedule data collection instrumentation requirements early in the test planning process. The analysts and engineers on the TPWG should review the requirements for each data element and determine how the data can best be collected and recorded during tests. The failure to identify necessary instrumentation systems and modify or integrate them with existing systems in a timely manner may have a negative effect on the JT's test schedule and budget.

Most test facilities have instrumentation specifically designed for testing. Training facilities typically have less instrumentation than test facilities but usually have more instrumentation than training exercises. Depending on the venue selected for conducting the JT's tests, unique instrumentation may be required in order to collect the appropriate data. Acquiring unique instrumentation is the responsibility of the JTD. If required, the JTD must identify where the unique instrumentation will be obtained (borrowed, purchased, or leased), determine the cost, and arrange for acquisition. The JPO warehouse located in Fort Walton Beach, Florida is a possible source for a limited inventory of transportable instrumentation that may be available to support specific test event requirements. The JT must also consider costs related to instrumentation calibration, as well as the cost to train personnel to operate unique instrumentation.

#### **3.5.1.1.5 Communications Requirements**

Detailed test event planning must include requirements for communications to support functions such as test control, data management, security, and safety. If testing at a test or training range, test control may also require assigned communications nets and frequencies. If special communications frequencies are required, test planners should identify these requirements early and initiate frequency use authorizations with the local Federal Communication Commission (FCC)



representatives at least six months before they are required. The JT must establish frequency deconfliction procedures and, if jamming is involved, procedures to responsively terminate the jamming. The TPWG should work frequency deconfliction procedures through the exercise manager, test and training range managers, and/or base frequency deconfliction manager.

#### **3.5.1.1.6 Logistics Requirements**

Logistics support consists primarily of planning and arranging for services and facilities to support the test team during a test event. The required support will vary depending on the size and complexity of the test. Regardless, careful attention to logistics will avoid costly delays in test execution due to late arrival of test resources. It is usually beneficial to separate logistics requirements into two categories: materiel support and service support. Each must be included as an annex to the DTP. Additionally, annex G contains information that may be helpful in DTP development.

#### **3.5.1.1.7 Personnel Requirements**

Most JTs have enough members on the team to fill test personnel requirements such as data collectors and site coordinators. Large test activities may require that test planners consider additional personnel for data collection requirements. Other JTs, reservists, other interested organizations, and support contractors are potential sources of personnel to satisfy data collector requirements. The JTD must also consider who pays for augmentation personnel. Often, the JTD can negotiate a cost-sharing agreement. For clarification, contact the JPO for guidance.

#### **3.5.1.1.8 Develop Data Collection Procedures**

Test planners must develop detailed procedures to ensure timely and accurate collection of all required data. These procedures must be in sufficient detail and recorded in the DTP. The TPWG should develop a data collector handbook as an annex to the DTP that addresses details for conducting the test event. The handbook must answer any question a data collector, test controller, test participant leadership, or support person might have about the conduct of the test. The DTP planners must consider the following:

- Developing a data collection schedule that specifies all data collector activities. All data collectors must know when they have to be on site and how long they must remain on site.
- Data collectors and test instrumentation operators must know when to initiate and terminate data collection to ensure the JT collects all required data at prescribed times, at required sample sizes, and in the appropriate data structure and format.
- Test procedures must include control of all test activities. Test control procedures must be clearly established, defined, and delineated in the DTP.

#### **3.5.1.1.9 Develop Data Management and Analysis Procedures**

Test planning includes complete, detailed, and integrated procedures for handling, identifying, storing, and managing data collected during a test event. Test planners must develop specific data management and analysis procedures for each test event. These procedures must address the transport, storage, and security of all data

recording and storage media. They must also address methods to create backup copies of all data collected at the test site before moving to another site. Test planners must also create procedures to control and maintain accountability of data, including methods to label, index, and catalog media. The data management and analysis procedures should explicitly explain:

- The list of data elements to be collected and specify when, how, and by whom they will be collected, the recording media and format, and the criteria for collecting and accepting the data. Document these data elements in an integrated data requirements list (IDRL). The IDRL should correlate with the test issues, all levels of sub-issues, and the data elements specified in the PTP.
- The instrumentation and pre-calibration required to support data collection
- All forms required for collecting data, manual and automated, how the JT will maintain configuration control of the forms, and who is responsible for their development. Include all data collection forms in an annex to the DTP. The JTSC will provide the JT with sample data collection forms and questionnaires during JT training.
- The procedures for collecting, labeling, and distributing data media
- Responsible persons for all actions in the data collection and management process
- The requirements for training data collectors and test managers
- The specified sample size and types of data to determine data recording media requirements
- The requirements for data management, including personnel, equipment, and facilities
- The procedures for data quality assurance (QA) and where the JT will implement them in the data management process
- The procedures for quick look analysis to ascertain that collected data are complete and accurate and to identify data collection and management deficiencies
- The procedures to ensure data collectors use Test Incident Report (TIR) forms to record any situation that appears outside of the norm, such as power outages, untrained personnel assigned to unfamiliar tasks, and so forth. The JTSC will provide a sample TIR form during JT training.
- The procedures for implementing a change or correction to a data collection form or data collection procedure
- Any special handling considerations and define the procedures for safeguarding classified media and data
- The procedures for disposition of all data

If the JT intends to automate any portion of the data collection and management system, test planners should include considerations for software development. The JT should use milestone reviews throughout software development to manage and correct slips that might occur. The following considerations, relative to software development, should be included in data management and analysis procedures:

- Problem definition
- M&S data logger applications
- Detailed software specifications



- The length of the design or acquisition period
- Timing of the implementation phase
- Software test integration requirements
- Acceptance criteria
- Beta test results

### **3.5.1.2 Additional Considerations**

The following sections address additional test planning factors the JT should consider when conducting TPWG meetings.

#### **3.5.1.2.1 Coordination of Resources**

The JTD must contact all organizations and agencies scheduled to provide resources or services to the JT to determine the specifics of the support they will provide and to verify that resources and services will be available when required. Document this coordination as MOAs or MOUs, to include such details as who is responsible for transporting the resources and who is responsible for providing logistics support for the resources. If required, establish MOAs or MOUs through the Service, COCOM, or other DOD agency POC.

#### **3.5.1.2.2 Test Event Scheduling**

The following are some considerations test planners should address in the development of workable test event schedules:

- Determine what test resource assets are most critical and which are the most difficult to obtain. Consider these assets first in development of the schedule.
- Determine if there is any flexibility in the composition of test events and determine the minimum number of iterations required. Schedule the least flexible test trials first.
- Determine a test trial order and schedule the most critical first.
- Ensure that test resources are available and ready for the start of each test trial.
- Consider the requirement for makeup test trials.
- Test planners should also consider the impact weather or equipment problems could have on the test event and adjust the schedule to accommodate this.

#### **3.5.1.2.3 Feedback to the Program**

Analysts will use the data collected from each individual test event to calculate measures, and, in turn, analysts use the measures to answer the test issues.

Accordingly, JT analysts must participate in DTP planning and test execution, and be able to determine if required data was collected. The JTD must remain cognizant of the overall test execution status and be prepared to refine or expand test event activities to collect incomplete or missing data.

#### **3.5.1.2.4 Operational Realism**

Test planners will inevitably face the concern of maintaining operational realism in the DTP planning process. Data collection, instrumentation, test and training range, and safety constraints frequently infringe on operational realism. Test planners must consult with operational personnel to verify that the deployment and employment of

weapon systems closely replicates current doctrine and TTP, and must develop procedures to ensure to minimize the impact of test data collection requirements.

#### **3.5.1.2.5 Environmental Protection**

Environmental protection considerations are of increasing importance to test planning, even those conducted on government ranges and federal or state lands. Test planning should consider potential environmental impacts and develop procedures to minimize, mitigate, or neutralize any adverse environmental effects. These considerations may require environmental assessments, instrumentation to monitor potential pollution effects, or discontinuation or re-definition of the test event. See annex C for more information on environmental considerations.

#### **3.5.1.2.6 Safety**

The DTP must designate a safety officer, outline responsibilities, identify critical safety aspects of the test event, specify safety procedures, and establish a plan for emergencies. If testing at a test or training range or facility, test planners must coordinate the safety procedures in the DTP with the appropriate range or facility safety officer. If at any time someone observes an unsafe condition, personnel will report the condition and cease operations until safe conditions exist. This is in addition to requirements contained in each Service's directives. Procedures for reporting safety-related incidents to the JT&E PM will also be included in the DTP. In the case of serious incidents of concern, the JTD will immediately notify the JT&E PM and DD,AW via the most expeditious means available, with a written report submitted within 24 hours. All personnel casualties and damage to, or losses of, major items of government property are incidents of concern to the JPO. Consider the severity of the incident, potential for adverse publicity, and consequences of the incident when determining if other incidents are of concern to the JPO. If the test event involves ground maneuver of forces or flying operations, a safety annex will be developed that addresses the below.

- Overall and specific safety responsibilities and requirements for equipment operations
- Overall and specific responsibilities for flight operations
- Responsibilities and procedures for ordnance handling, delivery, and disposal
- Test event shutdown criteria and the procedures for shutdown execution when conditions warrant
- Search and rescue responsibilities
- On-site medical support and medical evacuation procedures for military, government civilian, and contractor personnel
- Interfaces with other related safety programs and procedures

#### **3.5.1.2.7 Security**

DTP planning must consider all aspects of security to include procedures for the storage and handling of classified materials, restricted area access, information security (INFOSEC), operations security (OPSEC), communications security (COMSEC), and Emissions Security (EMSEC) if required. The planners must ensure that all program-level security requirements are satisfied in the DTP. The planners

should also consider any unique aspects of the planned test event and develop security plans and procedures accordingly. Annex H contains more information.

#### **3.5.1.2.8 Site Surveys**

Often the exact position in time and space of participating units and equipment participating in a test event must be precisely determined. Test planning must determine how these requirements will be satisfied. For land positions, this may involve simply obtaining existing survey data or surveying the intended locations. For air or sea positions, flight paths or vehicle routes must be accurately recorded using location instruments such as time-space position information (TSPI) radar or Global Positioning System (GPS) instrumentation. Geographical terrain data may be required for line-of-sight, equipment orientations, or relative geometry considerations. Alternate locations should be considered for all equipment in the event a particular location becomes unavailable prior to or during a trial. The IDRL must clearly specify all coordinate system metric units such as spherical and Cartesian coordinates and any conversion algorithms.

#### **3.5.1.2.9 Go/No-Go Criteria**

No test event is likely to occur as planned. When a problem or deviation occurs, it is important that the JTD quickly make an assessment to determine the utility of continuing that specific event. Test planners must develop criteria that will aid the JTD in the decision to postpone or cancel a test event or trial. The JT normally displays these go/no-go criteria in a table format that allows the JTD to determine quickly if a particular condition will adversely affect the activity. For complex test events, the criteria may address multiple decision levels that allow for continuation of the event in a degraded mode.

#### **3.5.1.2.10 Test Rehearsals**

The JT must conduct pre-test rehearsals prior to each test event to identify potential problems in the data collection plan, regardless of whether or not they conducted a risk reduction event. The JT must conduct test rehearsals to maximize the probability that data collection procedures will be successful. Complex tests can yield invalid conclusions if the participants do not follow the prescribed data collection procedures, if the data collectors do not thoroughly understand what they are to record, or if data collection equipment malfunctions. Rehearsals should exercise all parameters of the data collection processes and methods to include checking instrumentation, collecting sample data, conducting data management functions, and checking operational and safety procedures. Analysts should also reduce and analyze pre-test rehearsal data using their data management and analysis procedures, tools, and techniques. The JT must conduct these rehearsals sufficiently in advance of the test event to accommodate corrections or revisions to the test procedures, data forms, questionnaires, and collection media. In this regard, it is also worthy of note that many exercise owners require the installation and testing of all participating combat systems and equipment well in advance of the exercise. This may provide an additional opportunity to validate data collection requirements at the system nodes.

### **3.5.2 Test Event Execution**

The DTP is only as good as the execution of the plan. The execution is the essential bridge between test planning, data analysis, and reporting. The JTD must execute the test through attention to detail and coordinated actions of the test team. For successful execution of the test, the JT must direct and control the test resources and collect the data required for analysis. The following sections describe the JT's responsibilities, pre-test activities, test conduct, and post-test activities.

The JTD typically has a test manager (TM) who is responsible for the safe and effective execution of each test event. The TM must have a complete understanding of the concept of structured testing, the missions of the military forces, systems, and equipment in the tests, and the operation of the range or test facility. The TM is the primary coordinator between the JTD, the test participants, the instrumentation and systems operators, and the range, exercise, or test facility. It is the TM's responsibility to control the data collection activities to ensure data collectors follow DTP procedures and that realistic and accurate data are collected. The TM must also be prepared to address unforeseen circumstances and make adjustments in test activities or data collection procedures to ensure safe conduct of the test event and the data collected will satisfy JT requirements.

The TM need not be a technical expert on every aspect of the test but must ensure that technical expertise is available to fill that role. The primary skill requirements for a TM during test execution include the ability to coordinate and get various groups to work together, quickly evaluate situations, and quickly make decisions. TM responsibilities during test event execution will require total and undivided attention during all phases.

#### **3.5.2.1 Pre-Test Preparation**

Pre-test preparations begin during test event planning. The TM must develop a schedule to complete required actions prior to test execution. Pre-test preparations must include final range or facility-use coordination, those actions required to ensure participants and equipment are in place, and completion of any required data collector and participant training. The TM must use the time between DTP approval and test execution to review all aspects of the test (equipment, instrumentation, procedures, data collection and management, quick-look analysis, and administration) and implement corrective actions as required.

The TM must coordinate with range and facility managers regarding the range schedule, test control, instrumentation support, safety, and procedures for the use of their range or test facility. This coordination will be continual throughout planning, test execution, and post-test activities. The TM will ensure personal two-way communication between the test team and the range or facility personnel is in place as part of test control. Key factors in a successful test are that all participants and equipment are in place, all are located in accordance with the test plan, and all equipment is operating within the prescribed parameters. The TM must ensure that the test schedule includes provisions for all participants, equipment, and instrumentation to be on-site at the range or test facility sufficiently in advance to allow for equipment and instrumentation placement and necessary rehearsals. The TM must adjust, calibrate, or replace test equipment that does

not operate within prescribed parameters. Backup equipment should also be run and calibrated.

The TM must ensure all data collectors have a full understanding of their responsibilities. The test schedule must include provisions for a thorough orientation for all personnel that includes the when, where, what, and why of the test event. If the JT conducts a test event in conjunction with another test or training exercise, the TM should address the relationship between the two. Training should use hands-on demonstrations of military systems and data collection instrumentation to explain system operations, capabilities, and limitations. Training should also cover a full explanation of test control procedures, joint interoperability issues, communications, and safety considerations. Finally, a complete explanation of data collection, management, and the analysis process is required for those involved in data collection and management.

### **3.5.2.2 Test Conduct**

Adequate test planning and pre-test preparations should result in efficient test execution. However, the TM must be prepared to make decisions that affect conduct of the test.

#### **3.5.2.2.1 Test Control**

Test control procedures are extremely important throughout test event execution. The TM must determine when all personnel, instrumentation, and participants are ready for initiation of a test event. The TM will exercise control of all aspects of the test event and will terminate testing when necessary. The TM will monitor and assess the progress of the test relative to problems, the collection of data, and should be prepared to modify or substitute test trials to meet the overall schedule and data collection plan as delineated in the Data Collector's Handbook. The test control staff in the test operations center should be able to monitor all aspects of test execution in near real-time. Constant attention to the status of communications systems, safety, and control procedures is essential when assessing the test situation and responding to the dynamics of the test. These procedures apply to modeling and simulation test events as well as field tests and mini-tests.

#### **3.5.2.2.2 Data Collection and Management**

Throughout test execution, the TM is responsible for ensuring data collectors carry out the data collection and processing activities in accordance with their data collection and management procedures. The Data Manager must track the flow of test data to ensure there are no deviations from the data collection plan. Quick Look analysis is particularly important during multi-day test events, where early data analysis results can contribute to decisions to change or revise test execution. The responsibility for lost or corrupted data ultimately falls to the TM.

#### **3.5.2.2.3 Safety**

The TM is responsible for the safe execution of the test event. As discussed previously, the JTD will appoint a safety officer to be responsible for interfacing with the host range or facility safety officers on all safety matters and will assist the TM in this responsibility. The safety officer will continually monitor all aspects of the test

to identify, report, and correct safety deficiencies. Whenever an unsafe situation occurs, data collectors must complete a TIR for consideration by the analysts.

#### **3.5.2.2.4 Security**

The TM is responsible for safeguarding all classified equipment, data, and data media used or produced during the test. The JTD must also assign a security officer with responsibility for interfacing with the host range or facility security officers on all security matters. Classified data and media will be under positive control throughout the test event, including the movement of data between test sites. Additional information is located in annex H.

#### **3.5.2.3 Post-Test Activities**

During post-test activities, the TM is responsible for ensuring the safe return of all participants and equipment to their parent units and that the condition of the equipment is comparable to the received condition. The TM is responsible for the accountability and return of all range or facility equipment assigned to, or used during, the test and the close out of all support arrangements and agreements.

### **3.6 Analysis and Evaluation**

While the terms analysis and evaluation are inter-related, they actually denote clearly distinguishable functions within a JT. Analysis denotes the process whereby a JT reduces, logically assembles, examines, and analyzes data to calculate test measures. Where measure criteria exist, analysis also encompasses comparison to those criteria. Evaluation is the aggregation, assessment, and operational interpretation of the analysis. The following sections describe analysis and evaluation functions.

#### **3.6.1 Analysis**

Analysis is frequently confused with number crunching and statistics, which are actually sub-activities to the overall analysis process. Program analysis involves determining the meaningfulness of observed effects in terms of operational impact, assessing the importance of trends that analysts cannot verify statistically, and providing insights into why observed effects were (or were not) demonstrated. In addition, analysts may have to answer some issues based on aggregating outcomes across several objectives or measures. Aggregation is frequently very difficult to codify. Analysts will also judge some measures as more important and some measures as less reliable. Patterns of results may suggest conclusions supported by multiple findings. Contradictions and ambiguities in the data are inevitable. The analysis methodology must consider all of these factors and specify the analysis procedures in sufficient detail so that test execution becomes primarily a matter of following instructions. There are typically three types of analysis: exploratory, confirmatory, and extended. Analysts should adequately analyze test data using these types of analyses in combination.

##### **3.6.1.1 Exploratory Analysis**

Exploratory analysis refers to the methods and tools used by analysts to understand, characterize, and investigate test data. The types of explorations performed are very



much dependent on the type of data collected and the overall analysis approach, but generally includes:

- Examining measures of central tendency and dispersion
- Determining the shapes and scaling assumptions of underlying distributions
- Determining criteria and procedures for handling outliers and missing data
- Testing assumptions of normality, independence, and homogeneity of variance (if appropriate)
- Examining univariate and multivariate correlations among test variables
- Common methods and tools for exploratory analysis include simple descriptive statistics (for example, mean, standard deviation, variance, range, skewness, and kurtosis), frequency tables and graphs, histograms, box-and-whisker plots, stem-and-leaf plots, and scatter plots.

### **3.6.1.2 Confirmatory Analysis**

Confirmatory analysis refers to the methods and tools used by analysts to determine the statistical and operational significance and confidence levels associated with predicted outcomes. Where hypothesis testing is appropriate, this step involves the application of parametric tests (for example, compare means, independent or related sample t-tests, and analysis of variance) or non-parametric tests (for example, Chi-Square test, Kolmogorov-Smirnov test, Runs test, or tests for independent or related samples). Techniques such as design of experiments, network analyses, reliability methods, and stochastic processes are other applications that provide a statistical basis for test findings and conclusions. In other cases, analysis may involve simple comparison of success and failure rates or characterizing performance using engineering models or simulations. In some cases, human judgment is a primary analysis method based upon expert opinion or surveys of operators. JTs must utilize caution, however, when relying on expert opinion or surveys due to their subjective nature.

### **3.6.1.3 Extended Analysis**

Extended analysis refers to the methods and tools to obtain information beyond the data collected during the test. Anomalous or unexpected results may be contrary to the current understanding of the system or its interfaces with other systems. Analysts may need to extend results using models or simulations, sensitivity analysis techniques, or other extrapolation methods. In most cases, this step will address specific aspects of cause and effect in system or process performance.

## **3.6.2 Evaluation**

Evaluation is a broad analytical approach where data from all of the test events (field test, mini-test, or simulation test) are synthesized and analyzed to answer the JT's issues and sub-issues. Evaluation necessitates examining the data with respect to operational realism and combat uncertainties, and typically focuses on providing information relative to operational effectiveness by addressing TTP, system-of-system architecture, training, or correction of deficiencies.

The evaluation process is evolutionary throughout the JT. The importance of evaluation to support the resolution of the JT issues cannot be overemphasized. It is the responsibility of

those involved in the evaluation process to ensure the JT maintains proper focus on the answers to the test issues. The key element of the evaluation phase of the analysis is to include operational personnel from the joint community and Services who have a thorough understanding of the JT operational subject area. It is not appropriate to use JT personnel in this role. The T&E community considers the JT as biased due to their roles in planning and execution. The strength of JT rigor is that the test findings, conclusions, and recommendations evolve from quality data collected during operationally realistic test events in sufficient quantities to support statistical analysis. The second part of this process is applying the scrutiny of operational subject matter experts (SMEs) to the analysis products to determine their relevance to the operational problems addressed by the JT and to state recommendations in a manner that are operationally implementable.

### **3.7 Reviews and Deliverables**

The JTD is responsible for conducting periodic internal reviews and producing briefings and reports to keep the JT&E PM, joint community, and participating Services apprised of the JT status and problems that might affect the successful completion of the JT.

#### **3.7.1 JPO Reviews**

The JTD must coordinate, via the AO, an annual in-progress review with the JT&E PM. The JT&E PM will schedule additional reviews as deemed appropriate. The JT in-progress review, resource review, test event technical review, and the JTD's test update briefing to the JT&E PM will occur as directed by the JPO. These reviews will address the general, financial, and technical status of the JT, PTP and schedule milestones, current issues, status of test execution, test product transition, and status of obligations and expenditures. Other agencies may be included in periodic but less frequent reviews. Basic elements to include in the progress reviews include milestone completions, projections, future activities, decision points, and interfaces with other agencies. The identification of long lead-time preparations and projected procurement requirements will also be included.

It is important to keep the JT&E PM informed of any problem areas encountered, solutions worked, problems outstanding, required assistance, and any potential impact on the JT execution or schedule. The JT&E PM will assist in resolving problems.

##### **3.7.1.1 In-Progress Reviews**

The focus of in-progress reviews will be on the technical and programmatic aspects of the JT in terms of progress, technical risk, test products, and execution of the JT's schedule and budget plan. In preparing for the in-progress review, the following basic elements are required:

- Basic background information (when chartered, who is sponsor, what is the operational issue being addressed)
- Problem statement
- Test issues and objectives
- Deviations from the PTP
- Test schedule (where are they in the big picture)
- Review previous test event results (successes and/or failures – for incomplete results, including causes and steps to prevent in the future)



- Details on next scheduled test event
- Proposed test products and Customers
- Status of test products
- Status of Closedown and Transition Plan
- Status of other JT documents (DTPs, Quick Look Reports, Test Event Reports)
- GOSC status (members, schedule, action item status, and so forth)
- CRE update
- Challenges and risks (administrative, manpower, test objectives, schedule, and so forth)
- Other activities supported by JT (other initiatives currently supported or requested by external organizations)

The expected participants in the in-progress review include the JT&E PM, Deputy PM, assigned JPO TD and AO, JTD, JT Technical Director, and Resource Manager.

### **3.7.1.2 Resource Reviews**

For resource reviews, the JTD will present a graphic depiction of the budget status that displays committed, uncommitted, accrued, and expended JT funds. The review must also address direct cite funds, reimbursable funds, and contracts when applicable. Other resource areas to include, when applicable or significant, are the cost of day-to-day activities and future test events.

### **3.7.1.3 Test Event Technical Reviews**

The test event readiness review (TETR) is a working session that discusses the specific technical details of the DTP. It is required prior to the JT conducting its first test event. The JPO TD may conduct a TETR for other test events at the discretion of the JPO or by request of the JTD. The TETR should occur after review of the IDRL (70 working days before test start) and the first draft DTP (50 working days before test start). Attendees should be those involved in the details of test planning. As a minimum, the participants in the TETR should include the JPO Technical Director, Action Officer, FFRDC Representative, JT Technical Director, Test Manager, Data Manager, and Lead Analyst. If aspects of the DTP need to be discussed with the JT&E PM or Deputy PM, then the JTD should request an IPR or invite the JT&E PM to attend an internal test event readiness review (TERR) as part of the regular test planning process. In preparing for the TETR, the team should be prepared to discuss the following basic elements:

- Test concept
- Test article(s)
- Test event purpose and objectives
- Test event “Day-in-the-Life” picture (illustration of what a day during the test event looks like)
- Test issues, sub-issues, and measures (prepare to discuss IDRL and sample sizes needed)
- Dendritic conformance and deviations with PTP or previous testing (map test event issues and sub-issues to PTP, as appropriate)
- Test event assumptions, limitations, and constraints
- Data collection plan (collection, reduction, and analysis)

- Test event schedule for data authentication, delivery, analysis, and reporting
- Test timeline (ahead, behind, or on schedule)
- Test event resources (critical or minimum set of resources)
- Limitation or issues with test event planning and execution
- Test event excursions, objectives, and impact on test objectives
- Significant risks and mitigations

### **3.7.2 Advisory Reviews**

The JT&E Program receives advice from a number of technical organizations that are available to counsel JTDs on technical, test, and doctrinal issues related to the program in general and to a specific JT in particular. These technical organizations include the SAC, TAB, Technical Advisory Groups (TAG), GOSC, and Functional Expert Panels such as the JWAG. Reviews by these advisory organizations serve two primary purposes. First, they validate JT ideas, approaches, and methodologies using senior personnel with unique operational and technical expertise. Second, they provide senior-level Service and joint insights into the JT's goals and can provide the JTD with valuable information and ideas on how to improve the JT.

#### **3.7.2.1 Senior Advisory Council**

The JT&E SAC is the senior-level advisory group that recommended chartering the JT. If the JTD requests significant changes to the PTP, especially if the requested changes involve the test concept or additional tests outside the scope of the JT, the JT will have to brief the SAC on the proposed changes.

#### **3.7.2.2 Technical Advisory Board**

When requested by DD,AW or the JT&E PM, the TAB may review the technical status of on-going JTs to ensure they remain feasible for execution as originally proposed. The TAB review (TAB III), if conducted, should cover main information provided at TAB II but concentrate on any deviations from the planned test concept described in the PTP and the current progress of the JT.

#### **3.7.2.3 General Officer Steering Committee**

Every JT is required to form a GOSC and to schedule review meetings at least annually. The GOSC consists of senior Service and joint community flag officers who advise the JTD relative to joint or Service policies, doctrine, tactics, roles, and missions. The JTD will coordinate directly with the Services and joint commands to obtain the services of GOSC members. The JTD should tailor the membership and roles of the GOSC to the subject area and particular needed resource requirements of the JT. The DD,AW will participate in all GOSCs and will approve the preliminary GOSC membership before sending formal invitations. The GOSC provides guidance, either collectively, or through the actions of individual members and should be included in the review cycle of test products and documents. The GOSC members can help the JTD to obtain test resources, coordinate transition of test products, and assist in promulgating test results within their Services and joint communities.

#### **3.7.2.4 Joint Warfighter Advisory Group**

The JTD should form a JWAG to obtain joint warfighter operational expertise or assistance that is not available within the JT. This involvement is helpful in the ultimate coordination and acceptance of test findings, conclusions, recommendations, and test products by the operational and technical communities that emerge during execution of the JT. The JTD will determine the JWAG composition, which should consist of members who are experts in the required specific subject areas. JWAG members can be Service members, government service employees, or contractors.

#### **3.7.2.5 Technical Advisory Group**

A TAG is a technical body formed to provide specific technical advice to a JTD. The JTD should not form a TAG unless there is a clear technical reason to do so. A TAG is typically only necessary if the JT involves highly complex systems or technical issues a JWAG cannot address. The composition of the TAG may vary depending on the technical subject area in which the JTD needs assistance. TAG membership can include TAB members, technical SMEs from Federally-Funded Research and Development Center (FFRDC) representatives, the JPO TD, Service Systems Commands, or other military and DOD agency sources.

### **3.7.3 Written Deliverables**

In addition to the progress and technical reviews, the JTD will provide various written plans and reports to the DD,AW via the JT&E PM. Annex M provides the outlines for written deliverables. Table 3-1 lists each required plan and report and their associated suspense dates.

#### **3.7.3.1 Program Test Plan**

The PTP provides program-level detail for all JT activities including discussion of test purpose, goals, and feasibility, as well as potential test venues, test article requirements, equipment requirements, and expertise needed. The PTP also contains the CRE, which identifies the financial and personnel resources needed to support and execute test activities described in the PTP. The JFS begins writing the PTP but the third draft and final version are deliverables of the newly chartered JT.

#### **3.7.3.2 Detailed Test Plan**

A DTP is required for all scheduled test events (mini-tests, field tests, and simulation tests). The DTP provides information that is required to coordinate activities to plan and execute the test event. When compared to the PTP, the DTP specifies the details of what, when, where, who, and how to conduct a specific test event. The JT will also draft and submit plans for all RREs. The RRE plan should follow the format for a DTP but will consist of only the final plan submitted according to the suspense for a final DTP.

#### **3.7.3.3 Monthly Progress and Resource Reports**

In addition to progress and technical reviews, the JTD will provide monthly progress and resource reports. The JT&E leadership uses the monthly progress report as a management tool to document systematically the program status and as a primary means of identifying, documenting, tracking, and transmitting issues and impacts. The monthly

status report also establishes an authoritative historical record of program activity. The JTD submits both reports by e-mail to the JT&E PM and Deputy PM via the assigned AO.

**Table 3-1. JT Deliverables**

DOCUMENT OR REPORT	RESPONSIBILITIES	SUSPENSE
Program Test Plan (PTP)	Coordinated with PM, DPM, AO, TD, and FFRDC Signed and released by JTD Approved by DD,AW and AT&L	1 <sup>st</sup> draft due 40 working days before the SAC 2 <sup>nd</sup> draft due 15 working days before the SAC Red Team review 10 working days after the SAC 3 <sup>rd</sup> draft due 25 working days after the SAC Final signed 90 working days after the SAC
Detailed Test Plan (DTP)	Coordinated with AO, TD, and FFRDC Approved and released by the JTD	IDRL due 70 working days before a test event 1 <sup>st</sup> draft due 60 working days before a test event Test Event Technical Review 50 working days before a reportable test event (mandatory for 1 <sup>st</sup> test event but may also be mandated for subsequent test events at the discretion of the JPO TD) 2 <sup>nd</sup> draft due 40 working days before a test event Final signed 20 working days before a test event.
Progress and Resource Reports	Signed by JTD	Due to JT&E PM 10th of each month (or the next business day if the 10th falls on a weekend or holiday)
Quick Look Report (QLR)	Signed and released by JTD Coordinated with AO, TD, and FFRDC Approved by JT&E PM	Draft due 20 working days after a test event. Final signed 30 working days after a test event.
Test Event Report (TER) <b>IF NOT FINAL TEST EVENT</b>	Signed and released by JTD Coordinated with AO, TD, and FFRDC Approved by JT&E PM	1 <sup>st</sup> draft due 80 working days after a test event 2 <sup>nd</sup> draft due 100 working days after a test event Final signed 120 working days after a test event.
Final Report (FR) <b>IF FINAL TEST EVENT</b>	Signed and released by JTD Coordinated with AO, TD, and FFRDC Final draft reviewed by AO, TD, FFRDC, and PC. Approved by DD,AW	1 <sup>st</sup> draft due 80 working days after final test event 2 <sup>nd</sup> draft due 100 working days after final test event Final signed 125 working days after final test event.
JT Lessons Learned Report (LLR)	Coordinated with AO, TD, and FFRDC Approved and released by JTD.	1 <sup>st</sup> draft due 30 working days before closedown Final signed 20 working days before closedown.
Closedown and Transition Plan (CTP)	Coordinated with AO, TD, and FFRDC Approved and released by JTD.	1 <sup>st</sup> draft due 1 year after charter Additional drafts submitted as required. Final signed 1 year before closedown.

#### **3.7.3.4 Quick Look Report**

A quick look report (QLR) is required for all scheduled test events (mini-tests, field tests, and simulation tests). The QLR is a top-level summary of initial findings from a test event. The report provides preliminary, informal feedback to the JPO and JT customers (such as regional Combatant Commanders, Services, JWAG, and the T&E community). The JT should not release the QLR without JPO coordination.

#### **3.7.3.5 Test Event Report**

The test event report (TER) communicates the results of a scheduled test event (field test, mini-test, or simulation test). The TER must include answers to applicable test issues and sub-issues as well as other relevant information such as operational recommendations. Collectively, TERs provide an audit trail for the development and validation of the final report findings, conclusions, and recommendations. While there are definitive timelines for the submission of a TER, it is also important for the JTD to consider the time required to plan for subsequent tests when submitting a TER. For example, for a baseline-enhanced or sequential test concept, subsequent test events are usually dependent upon the results of previous test events. If this is the case, then the JT should submit the first draft of the TER for review at least 10 working days before the JT submits the DTP for the next test event for review. If the JPO cannot review the TER prior to the receipt of the DTP for any subsequent test events, then the JT&E PM may provide a recommendation to DD,AW to postpone the subsequent test event.

The JT will also draft and submit after action reports (AARs) to the JPO for all RREs. The AAR for an RRE should follow the format for a QLR and be submitted IAW the timelines for that report.

#### **3.7.3.6 Final Report**

The final report (FR) communicates the results of all scheduled test events (field test, mini-test, simulation test). The FR must include answers to applicable test issues and sub-issues as well as overall JT findings, conclusions, and recommendations. Preparation of the FR is an aggregation of information from all the TERs. The JT must start the final report development early and continue in parallel with completion of all activities. The JT should complete sections of the FR as they collect, analyze, and develop findings relative to the test issues. However, the JTD must exercise care to avoid premature conclusions based on partial test findings. It is essential for the JTD to devote the required time, effort, and resources to ensure the FR and supporting briefings are quality products and contain defensible, meaningful test findings, conclusions, and recommendations. The JPO AO, TD, and FFRDC representative must review the FR and then fully coordinate the FR with DOT&E, the Joint Staff, USJFCOM, and the Services before publication. If the FR recommends the institutionalization of JT-developed test products, the report will include specific recommendations for where, who, and how the institutionalization will be accomplished.

### **3.7.3.7 JT Lessons Learned Report**

The JT LLR provides DD,AW, the JT&E PM, and other JTDs with lessons learned and advice for resolving programmatic and test execution problems. This information is useful to current and future JTDs in improving the efficiency and effectiveness of their JTs. From the date of charter, the JTD and staff must consciously record programmatic issues and any related solutions for subsequent inclusion in the LLR. JTs frequently misinterpret documenting a lesson learned as admitting a mistake. Lessons learned seldom benefit the author and thus frequently receive a minimal level of effort. This report, however, is of significant value to the management of other ongoing and future JTs as a way not to repeat previous mistakes or to use proven workarounds to accomplish required tasks.

### **3.7.3.8 Closedown and Transition Plan**

The closedown and transition plan (CTP) includes information on closing down the JT as well as transitioning test products. The primary purpose of the closedown part of the plan is to document those essential actions necessary to ensure a smooth, coordinated transfer of personnel, equipment, facilities, and final reporting during the closedown of the JT. The purpose of the transition part of the plan is to document the strategy and milestones for transitioning test products to customers (Combatant Commands, Joint Staff, Services, USJFCOM, national agencies, program offices, technical organizations). It must contain specific information on the development of each test product, planned transition strategy to an identified customer, and a schedule for test product transfer. The JTD must present a closedown and transition briefing 12 months before closedown to the JT&E PM that includes the main points of the closedown and transition plan, specific actions to be accomplished, current status of these actions, and a completion schedule.

## **3.8 Transitioning Test Products**

By definition, JTs address and evaluate solutions to operational problems or deficiencies in joint operations. In most cases, the answering of the issues and resolving the joint problem results in specific recommendations for changes to joint and Service policies and procedures. The JT develops test products that represent significant improvements in operational capabilities for OSD, the Joint Staff, the COCOMs, and the Services. JT recommendations and test products come in many forms that range from changes in policy directives, inputs to improve doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF), to validating methodologies for evaluating operational systems, or providing enhanced simulator training capabilities. None of the JT recommendations or test products represents improvement in joint operational capabilities unless they are implemented and institutionalized.

The JTD must review each test product that emerges from the JT for possible implementation. The JT team must consider the following for each test product:

- How does the test product help resolve the joint problem?
- Does testing sufficiently validate the test product to support an implementation decision?
- How does the test product improve training, testing, or combat operations?
- What organizations should adopt the test product?
- What are the costs to implement the test product in terms of workforce and budget?
- Who is responsible for planning and budgeting for the transition of the test product?



- What are the savings and improvements in efficiency to joint capabilities?
- What are the implications of joint and Service training?

Twelve months prior to closedown, the JTD will publish the final CTP for institutionalization of the test products. This plan will address all facets of ownership transfer, to include who, where, and how the JT recommendations and test products should be institutionalized. The plan must be coordinated with all agencies or organizations that are involved in the institutionalization of the test products. The JT&E PM will approve the closedown and transition plan. If the JT intends to institutionalize test products in DOTMLPF change recommendations, then the JTD must follow guidance found in Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01F, Joint Capabilities Integration and Development System and Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3170.01C, Operation of the Joint Capabilities Integration and Development System. If the JT wants to institutionalize test products in acquisition program requirements then the JTD must submit a joint resource change recommendation (JRCR) in accordance with CJCSI 3180.01, Joint Requirements Oversight Council (JROC) Programmatic Processes for Joint Experimentation and Joint Resource Change Recommendations. The JTD submits the DCR and/or JRCR to the joint organization responsible for the subject area of the JT. Prior to submission, the JTD will submit a draft copy to the JT&E PM, via the AO, and the JPO's Liaison Officers (LNOs) at USJFCOM for review and processing.

The JTD may also produce residual byproducts that have value to other JTs and organizations. Such byproducts include models and simulations, databases produced or used by the JT, and various documents and reports. The JTD should also institutionalize these residual byproducts, if possible. The following sections describe the procedures for institutionalizing residual byproducts.

### **3.8.1 Models and Simulations**

If the JT has adapted or developed a model or simulation capability for its use, it represents a residual byproduct. The JTD should provide copies of the M&S documents to those joint and Service organizations that express an interest in the demonstrated capability of the M&S. A JT that acquires, modifies, or develops a model or simulation must provide the lead Service modeling and simulation agent and Defense Modeling and Simulation Office (DMSO) with information concerning the M&S in the format required by the M&S Resource Repository. The JTD should also provide estimated annual costs (for example, configuration management) to the receiving agency to facilitate budgeting for the product. Specifics of planning an M&S-based test event are contained in annex I and in the PTP and DTP outline contained in annex M.

### **3.8.2 Databases**

In most cases, the JT expends considerable effort in the collection of data and the development of a test database. The results of these efforts represent residual byproducts the JT should archive and protect from corruption to ensure potential availability to other JT&E projects and Service programs. To the maximum extent possible, the JTD should transfer all JT data and databases to other JT&E, Service, and DOD projects. The JT must ensure complete documentation of all databases transferred to another owner and provide a plan for configuration management to the new owners.

### **3.8.3 Documents and Reports**

The JT&E PM must approve all test plans and test reports that contain test findings, conclusions, and recommendations produced by the JT prior to dissemination to external organizations. The JTD will forward copies of the PTP, DTPs, TERs, CTPs, and the FR to the JT&E-Suffolk facility for permanent storage in the JT&E library. If size permits, e-mail each document to [JTETLibrary@jte.osd.mil](mailto:JTETLibrary@jte.osd.mil) or to [JTETLibrary@jte.osd.smil.mil](mailto:JTETLibrary@jte.osd.smil.mil) for Secret documents. If the file is too large to send by e-mail, send a CD with a PDF to:

JT&E Librarian  
JT&E-Suffolk  
7025 Harbour View Blvd.  
Suite 105  
Suffolk, VA 23435

The JTD will also forward copies of all approved test documents to the Defense Technical Information Center (DTIC). The JT can obtain procedures for submission of technical documents and reports to DTIC by contacting:

Defense Technical Information Center (DTIC/OCP)  
8725 John J. Kingman Road, Suite 0944  
Fort Belvoir, VA 22060-6218  
Telephone: 703-767-9086  
Website: [www.dtic.mil](http://www.dtic.mil)

### **3.9 Outreach Support**

Each JTD is responsible for the outreach effort for their specific JT. The JT outreach effort can be an extremely effective way to garner attention for the eventual transition of test products. Each JT may be required to write an initial press release regarding the charter, any other subject-related events of interest to the T&E community, as well as events of interest to the military community as a whole. Occasionally, the JPO will also require the JT to produce written materials for publications or news sources. The JT should comply with all requests for written material within the timeframe required. Refer to annex K for more information concerning the JPO outreach program.

### **3.10 Closedown of a JT**

Closedown is the last phase of a JT and perhaps the most demanding in terms of the work the team must accomplish in the time remaining. The JTD will initiate the development of a closedown and transition plan (discussed above), complete a draft within 12 months of charter, and submit the final to the JT&E PM no later than 12 months prior to the scheduled closedown date.

#### **3.10.1 Personnel**

Once the final test event for the JT is complete, the focus of the JTD and the corresponding personnel requirements shift to program-level activities such as analysis, compilation of information for the production of reports, and the inventory and disposition of property accounts. These activities involve specific personnel resources, which, in most cases, do not require all personnel assigned to the JT. Accordingly, the JT can release some personnel



after completion of the final test event and release others shortly after the completion of certain closedown actions. The JTD must exercise caution at this stage. It is very likely that personnel will unexpectedly depart for new jobs and assignments in anticipation of the JT closing down and the desire to remain employed. This is a recurring challenge that all JTDs face during the last six months of a JT. In anticipation of this possibility, it is essential that JTDs thoroughly plan early in the JT to ensure the team can complete test documents such as the final report. Whenever a government or contractor person permanently departs from the JT, the JT security manager will formally out brief them and provide a copy of the out brief to the JT&E PM. In the event of an individual holding an SCI billet, the security manager will also send a copy of the out brief to NAG. Additional closedown considerations for personnel are included in annex D.

### **3.10.2 Disposition of Assets**

Closedown of the JT involves the disposition of two categories of assets: facilities and property. The JTD must plan to handle these assets in accordance with appropriate policies and procedures. Closedown considerations and instructions for the disposition of assets are included in annex G.

### **3.10.3 Contracts and Support Agreements**

All contracts and support agreements the JTD established during the course of the JT must be closed and some may require special actions associated with the closedown. The JT&E PM will be available to assist in this area. An initial action required in the close out of a contract is a review relative to the completion date, level of effort, and scope. The JTD must evaluate the contract in terms of the remaining JT requirements, available resources, level of effort remaining, and the funding available to complete the work. If it is determined that no additional support is required for the completion of the JT, or to support the closedown plan, the JTD will initiate action to close out the contracts. The JTD must also terminate all support agreements with host-installation, supporting organizations, and agencies. Additional closedown activities related to the closeout of contracts are included in annex D.

### **3.10.4 Closeout of Fiscal Accounts**

Even after a JT closes down, the clean up of financial matters will continue. Late billings and final contract dispositions will create requirements for funds after the disestablishment of the JT. The JT&E PM will assist the JT's financial manager in this area, specifically in the area of the transfer of fiscal responsibilities from the JT to the JPO.

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## CHAPTER 4 QUICK REACTION TESTS

### 4.0 Introduction

Quick Reaction Tests (QRTs) address urgent, specific, and focused joint warfighter issues that are within the scope of the Joint Test and Evaluation (JT&E) Program. QRTs are short-term (approximately 12 months or less), test projects designed to quickly generate implementable solutions to specific warfighter problems. The combatant commands (COCOMs), Joint Staff, Services, Office of the Secretary of Defense (OSD), and other Department of Defense (DOD) agencies can sponsor a QRT; however, support from one or more of the Service Operational Test Agencies (OTAs) is required for the Director, Operational Test and Evaluation (DOT&E) to direct a QRT. The Service OTAs have the requisite test and evaluation expertise to conduct test planning, develop necessary documentation (Program Plan, Detailed Test Plans, and Test Event Reports), execute the test, and analyze operational test data within the 12-month timeline and have agreed to be the executors of QRTs in coordination with DOT&E. Throughout the QRT, the OTA Science Advisor, or Technical Director whichever is applicable, should provide direct technical oversight of test planning, execution, and test reporting. The JT&E Executive Steering Group (ESG), consisting of flag officers and Senior Executive Service (SES) personnel who represent the Services, joint organizations, and other DOD agencies, recommend approval of QRT nominations. If directed, DOT&E will fund and the assigned Service OTA will execute the QRT. Figure 4-1 provides the operational chain of command supporting QRT execution.

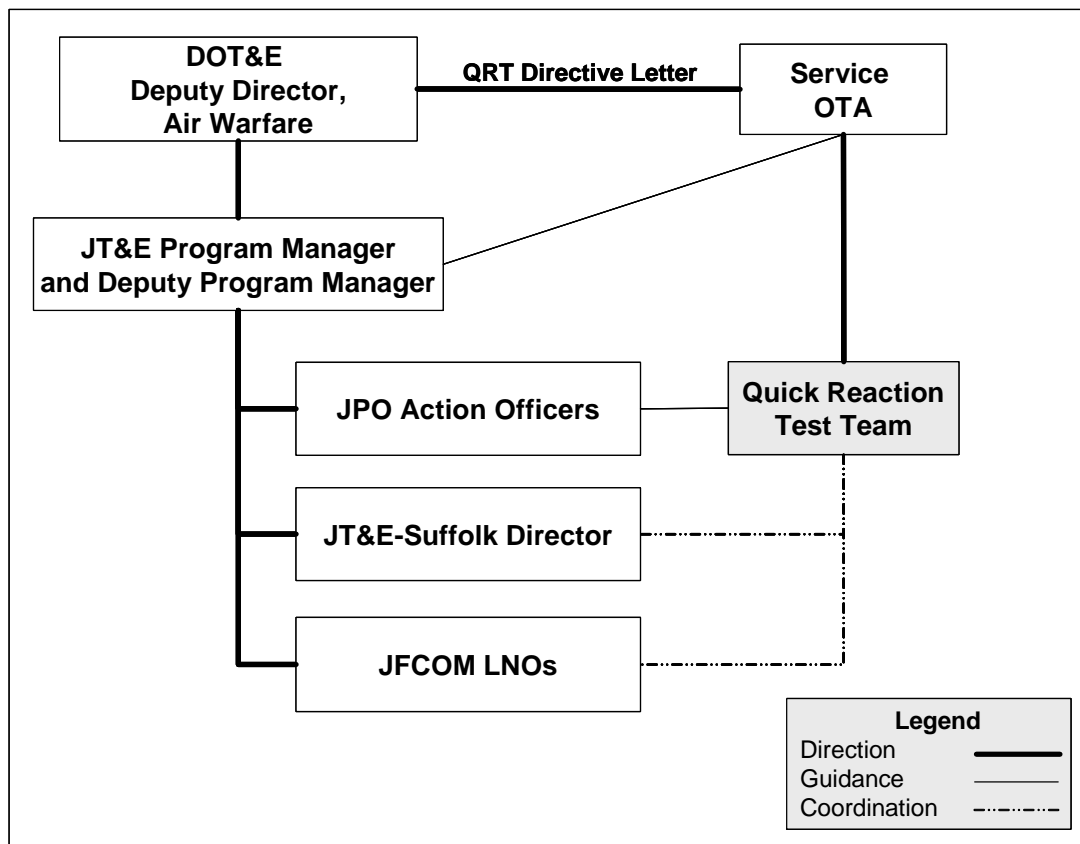


Figure 4-1. QRT Organization

#### 4.1 Pre-Nomination Phase

The Joint Staff, OSD, Services, COCOMs, and/or other DOD agencies can submit a QRT nomination at any time to address urgent:

- Joint operational issues affecting current military operations or combat capabilities. Warfighters can derive these issues from on-going combat operations or recurring issues and lessons learned conferences.
- Joint issues identified from field assessments, tactical operations, and other ongoing JT&E projects.

Those preparing a formal QRT nomination must focus on developing and providing the following type of information in as much detail as possible:

- Concise description and scope of the operational problem and a draft problem statement
- Purpose and expected operational benefits
- An explanation of what operational requirements are not being completed
- The expected improvements to operational capabilities and expected test products
- An estimate of expected resources (manpower, test assets, instrumentation, administrative support) and other associated test costs (that is, contractor support, test product production, etc) and length of time necessary to conduct the QRT
- Advocate endorsements

Prior to submission of the nomination, the JPO recommends the QRT nominator also become familiar with the remainder of this handbook, to include associated annexes. This will help the nominator understand the overall JT&E Program and the level of technical rigor expected of a QRT. Service OTA memorandums of agreement (MOAs) to support the QRT are optional, but highly recommended.

#### 4.2 Nomination Submittal

QRT nominations should use the JT&E nomination outline contained on the JT&E's website located at URL: <http://www.jte.osd.mil>. Those interested can download the nomination outline from the link located under "Call for Nominations". In addition to the submitting organization's commitment to sponsor the QRT if directed by DOT&E, the nomination package must include a signed endorsement letter from a COCOM or Joint Staff flag officer or SES representative or a letter signed by two or more Service flag officers and/or SESs. All QRT nominations will follow one of two review processes. For extremely urgent nominations that support current warfighting operations, the sponsor (two-star flag officer or equivalent) should submit the nomination directly to the Deputy Director, Air Warfare (DD,AW), DOT&E, and JT&E Program Office (JPO) via the most expedient means available. The JPO will follow an "accelerated" QRT review process outlined in Figure 1 and will vet extremely urgent nominations within 30 calendar days of submission. Nomination sources will submit all other nominations through the JPO and follow the "normal" QRT review process where the ESG considers nominations once a quarter. Throughout the vetting process for any nomination (accelerated or normal), it is very important that the nomination team stay in contact with the JPO to ensure their nomination package can be quickly staffed through the review and coordination agencies and to answer questions, as required.

### **4.3 Vetting and Directing of an Extremely Urgent QRT Nomination**

Upon receipt of an extremely urgent QRT nomination, DD,AW and JPO will coordinate and discuss the nomination with the Joint Staff J8 to confirm that the QRT is both “joint” and “extremely urgent” and therefore needs to follow the accelerated review process (see Figure 4-2). If the nomination does not meet both of these criteria, the JPO will provide feedback to the nominator to correct any deficiencies and/or place the QRT in the normal (quarterly) review process for consideration. If approved for the accelerated review process, the JPO will assign an action officer (AO) to maintain visibility and facilitate the accelerated review process.

The JPO will immediately task the Joint Test Support Cell (JTSC), Suffolk, Virginia, to review the nomination package for completeness and adherence to QRT nomination submittal requirements. Within five working days, the JTSC will provide its assessment of the nomination back to the JPO. Simultaneously, the JPO assigned AO will send the nomination package and coordinate with applicable staff elements at the Service OTAs to assess the technical aspects (that is, feasibility of a successful QRT) of the nomination and determine which Service OTA is able to support the QRT. This assessment will take no longer than 10 working days. If the JTSC and Service OTA(s) assessments identify shortfalls or issues within the nomination, they will provide this information to the JPO and the nominator to resolve or mitigate prior to sending the nomination to the ESG for consideration.

Once ready, the ESG will be convened via electronic means [via e-mail, telecom, and/or video teleconference (VTC)] to solicit recommendations to approve the nomination. The final decision for approving the proposed QRT rests with the ESG Chairman, DD,AW, with the intent of completing the process within 30 calendar days of submission. If approved, the process will culminate with a signed DD,AW directive letter that officially establishes the QRT and identifies the lead and/or supporting Service OTAs. The lead Service OTA will immediately designate an O-6 QRT Director who will be responsible to lead and execute the QRT. The Directive letter also provides necessary guidance and coordination instructions for the QRT Director and DOT&E funding information. Once directed, the JPO assigned AO will continue to maintain visibility on the status of the QRT and mentor the newly formed QRT Team on the program requirements established by DOT&E (Program Plan, JPO Monthly Reports, Final Report). Lastly, the ESG Chairman will advise the nominating agency, Joint Staff, USJFCOM, United States Special Operations Command (USSOCOM), Army and Air Force Chiefs of Staff, Assistant Commandant of the Marine Corps, and Vice Chief of Naval Operations of the intent to direct the QRT by providing a copy of the Directive letter and asking for their support.

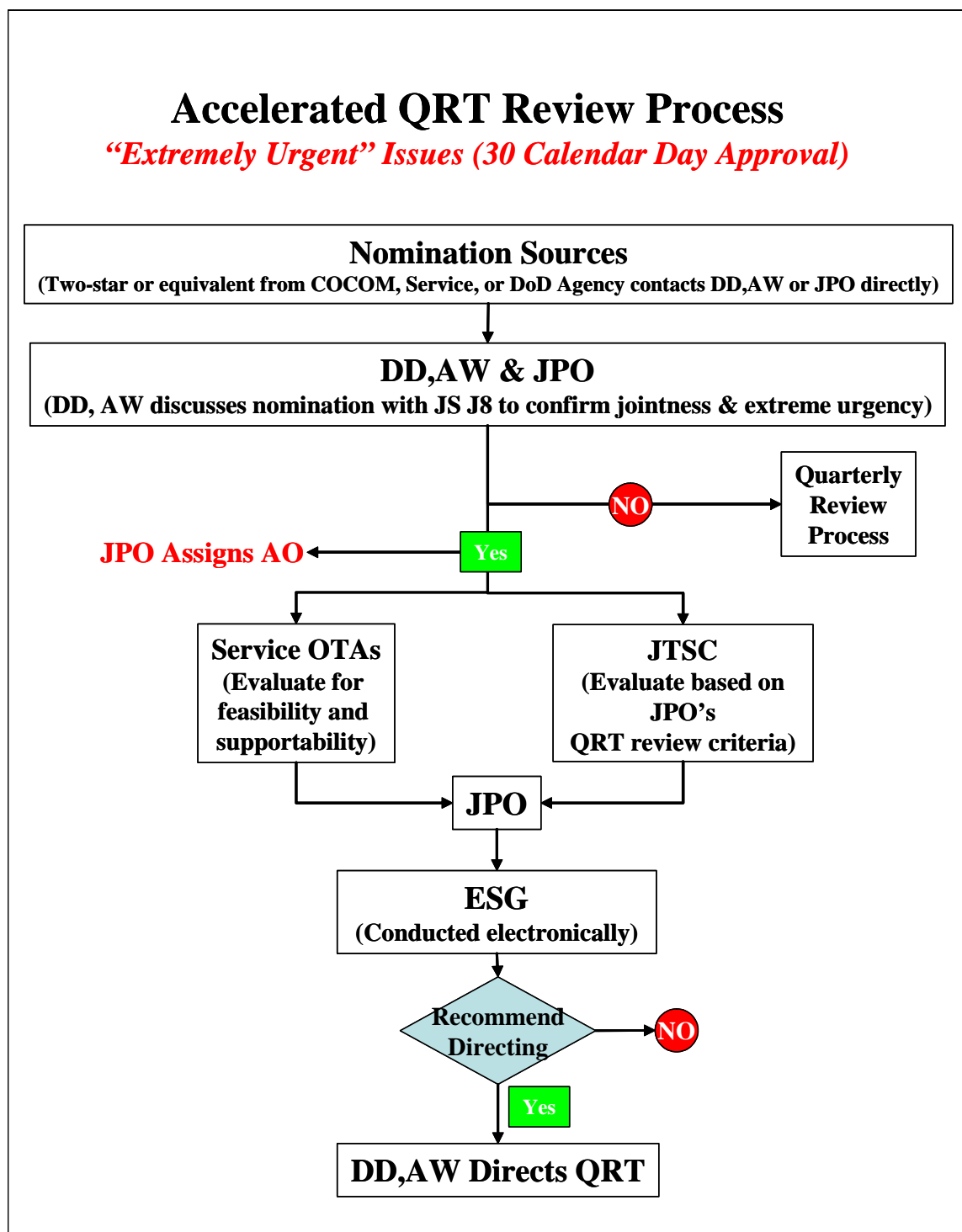


Figure 4-2. Accelerated Review Process

#### **4.4 Vetting and Directing of a Normal QRT Nomination**

Upon receipt of a normal QRT nomination, the JPO will begin the process to conduct an initial screening and assessment of the nomination (see Figure 4-3) within five working days of submission. After this initial screening, the JPO will send the nomination to the Service OTAs, Joint Staff, and United States Joint Forces Command (USJFCOM) to review the nomination package. The Service OTAs will evaluate the nomination for feasibility and supportability. The Joint Staff and USJFCOM will evaluate for jointness and urgency. The Service OTAs, Joint Staff, and USJFCOM will provide their assessments and associated comments to the JPO within ten working days. If the assessments identify shortfalls or issues within the nomination, the reviewers will provide this information back to the JPO and to the nominator to resolve or mitigate it prior to further processing.

If these assessments recommend taking the nomination forward to the ESG membership at the next quarterly review, the JPO will notify the ESG action officers to convene a QRT Working Group. The QRT Working Group consists of action officer representatives from the JPO, Services, Service OTAs, Joint Staff, USJFCOM, and United States Special Operations Command (USSOCOM). The QRT Working Group will convene quarterly if nominations are available for review. The QRT Working Group would discuss each nomination and forward the meeting minutes to the ESG identifying any concerns, issues, and recommendation regarding approving the QRT(s) and selecting the lead and/or supporting Service OTAs.

The ESG will convene (actual meeting or conducted electronically) to provide recommendations to approve and prioritize the nominations. Based on these ESG recommendations, the final decision for approving the proposed QRT rests with the ESG Chairman, DD,AW. If approved, the process will culminate with a signed DD,AW directive letter that officially tasks the QRT and identifies the lead and/or supporting Service OTAs. The lead Service OTA will immediately designate a Technical Director to manage the QRT and an O-6 QRT Director who will be responsible to lead and execute the QRT. The Directive letter also provides necessary guidance and coordination instructions for the QRT Director and DOT&E funding information. Once directed, the JPO will assign an AO in order to maintain visibility on the status of the QRT and mentor the newly formed QRT team on the program requirements established by DOT&E (Program Plan, JPO Monthly Reports, and Final Report). Lastly, the ESG Chairman will advise the nominating agency, Joint Staff, USJFCOM, USSOCOM, Army and Air Force Chiefs of Staff, Assistant Commandant of the Marine Corps, and Vice Chief of Naval Operations of the intent to direct the QRT by providing a copy of the Directive letter and asking for their support to execute the QRT.

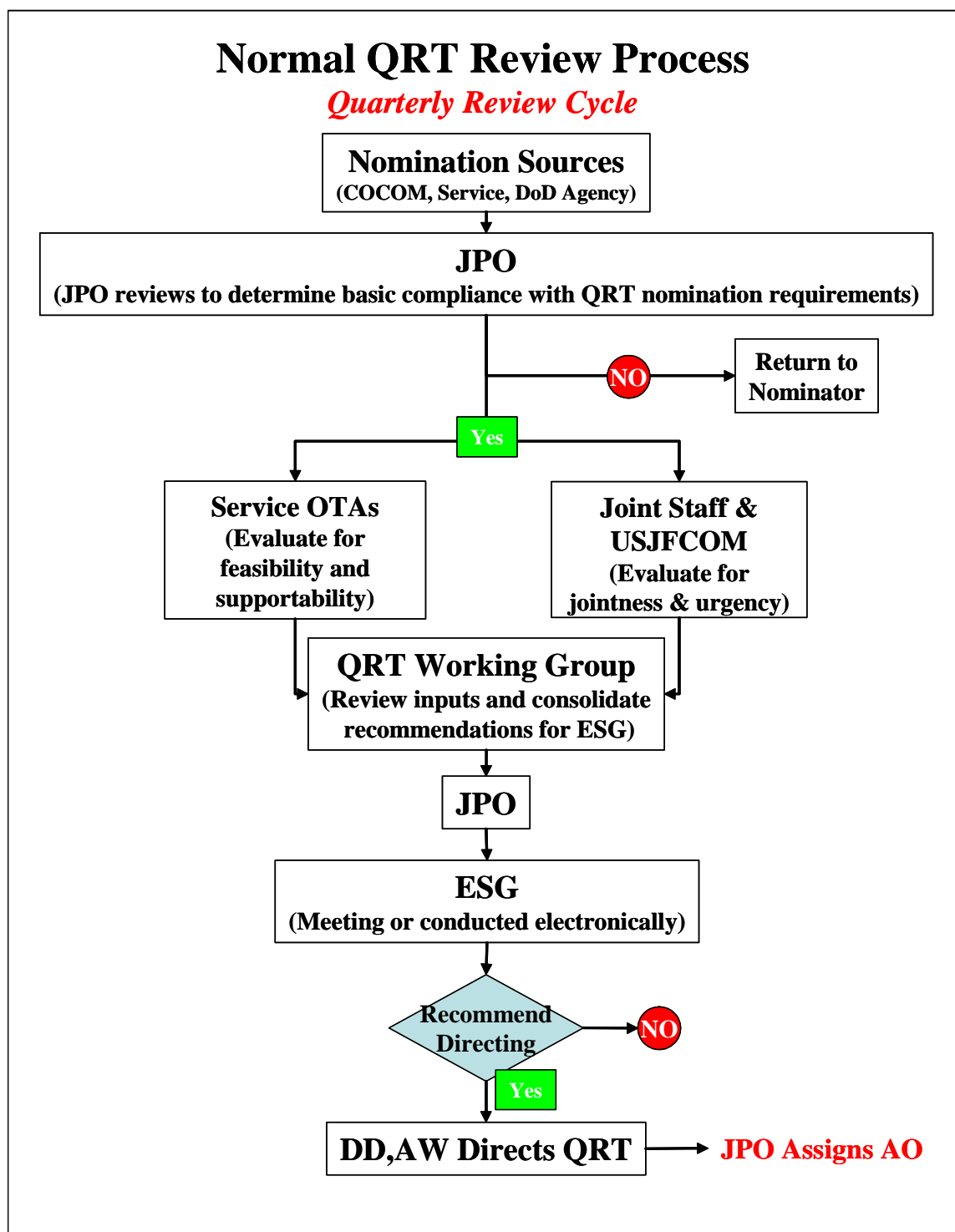


Figure 4-3. Quarterly Review Process



#### **4.5 Quick Reaction Test Planning and Execution**

The QRT Director must quickly form a team and develop a common understanding of the operational issues addressed by the relevant operational, tactical, and mission threads that the proposed solution may affect. The nominating organization(s) will provide the required subject matter experts (SMEs) to support the QRT Director and lead Service OTA to enable successful program execution.

The initial deliverable is the QRT Program Plan. This document is due within 60 working days after DD,AW direction and must provide an overview of the operational problem the QRT addresses, principal operational test issue(s), the test schedule, and an abbreviated consolidated resource estimate (CRE). The exact format for the Program Plan is up to the Service OTA to determine; however, previous examples are available from the JPO upon request. The lead Service OTA Commander and DD,AW will jointly sign the QRT Program Plan.

The following provides a list of items that each team should consider in formulating and executing an effective QRT:

- Identify, prioritize, and validate the operational test issues.
- Identify appropriate and rigorous test methods and venues.
- Coordinate with other Services and/or COCOMs to obtain military and government personnel support, test equipment requirements, threat systems, test and training range schedules, and on-site instrumentation requirements that may require long lead-time to coordinate and schedule.
- Identify all possible test products such as tactics, techniques, and procedures (TTP) and/or changes to operational communications systems and ISR architectures. The QRT should treat these items as test articles in the scheduled test events. The team should ensure that each test article has appropriate test measures and related data elements.
- Identify and understand the implications of potential QRT results on applicable doctrinal publications and documents to include related joint, multi-Service, and Service TTP.
- Begin developing justification and supporting documentation for ultimate fielding and implementation of the test products.

The team is responsible to provide the JPO with a monthly status and resource report. The team should also conduct periodic reviews and briefings that will keep the JPO, nominating organizations, and participating warfighters apprised of the status, progress, findings, conclusions, recommendations, and test products. The QRT Director must advise the lead and/or supporting Service OTAs and JT&E PM of any problems that will affect QRT execution. In addition, the QRT will provide any internal OTA-developed final test documentation (test plans and reports) to the JPO via the AO.

#### **4.6 Quick Reaction Test Products and Final Report**

Each QRT Director will identify and develop test products for delivery to the warfighter community as they become available and validated. The QRT Director will also generate and brief findings, conclusions, and recommendations to applicable joint, Service, and DOT&E leadership that result in changes to doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) recommendations designed to improve combat capabilities. If warranted, the QRT should consider the submission of DOTMLPF change

recommendations (DCR) through USJFCOM or applicable COCOMs. The JPO liaison officers to USJFCOM can provide advice and facilitate the submission of this type of product to USJFCOM.

Prior to shutdown, the QRT Director must prepare a final report. The approval authorities for the final report are the lead Service OTA Commander and DD,AW. This report can follow the format used by the lead Service OTA or the JT&E final report format provided in annex M.

**ANNEX A ACRONYMS AND ABBREVIATIONS**

<b>AAR</b>	After Action Report
<b>ADP</b>	Automated Data Processing
<b>AF</b>	Air Force
<b>AF/TEP</b>	Air Force Test and Evaluation Program
<b>AFA</b>	Air Force Association
<b>AFJO</b>	Air Force Joint Test and Evaluation Office
<b>AO</b>	Action Officer
<b>AR</b>	Army Regulation
<b>ATEC</b>	Army Test and Evaluation Command
<b>AT&amp;L</b>	Acquisition, Technology, and Logistics
<b>AUSA</b>	Association of the United States Army
<b>BPZ</b>	Below Promotion Zone
<b>BUPERSINST</b>	Bureau of Personnel Instruction (Navy)
<b>C2</b>	Command and Control
<b>CAF</b>	Combat Air Forces
<b>CATEX</b>	Categorical Exclusion
<b>CJCSI</b>	Chairman, Joint Chiefs of Staff Instruction
<b>CJCSM</b>	Chairman, Joint Chiefs of Staff Manual
<b>CLIN</b>	Contract Line Item Number
<b>CMC</b>	Commandant of the Marine Corps
<b>CNO</b>	Chief, Naval Operations
<b>COCOM</b>	Combatant Command
<b>COMSEC</b>	Communications Security
<b>COR</b>	Contracting Officer's Representative
<b>COTR</b>	Contracting Officer's Technical Representative
<b>COTS</b>	Commercial-Off-the-Shelf
<b>CRE</b>	Consolidated Resource Estimate
<b>CTP</b>	Closedown and Transition Plan
<b>CTS</b>	Combat Training Squadron
<b>DA</b>	Department of the Army
<b>DCID</b>	Director of Central Intelligence Directive
<b>DCR</b>	DOTMLPF Change Recommendation
<b>DD</b>	Defense Department
<b>DDSM</b>	Defense Distinguished Service Medal
<b>DD,AW</b>	Deputy Director, Air Warfare
<b>DFOISR</b>	Office of the Director, Freedom of Information and Security Review
<b>DIA</b>	Defense Intelligence Agency
<b>DLA</b>	Defense Logistics Agency
<b>DMSM</b>	Defense Meritorious Service Medal
<b>DMO</b>	Distributed Mission Operations
<b>DMSO</b>	Defense Modeling and Simulation Office
<b>DOD</b>	Department of Defense
<b>DODAF</b>	Department of Defense Architecture Framework

<b>DODD</b>	Department of Defense Directive
<b>DODI</b>	Department of Defense Instruction
<b>DOT&amp;E</b>	Director, Operational Test and Evaluation
<b>DOTMLPF</b>	Doctrine, Organization, Training, Materiel, Leadership and Education, Development, Personnel, and Facilities
<b>DRMO</b>	Defense Reutilization and Marketing Office
<b>DSN</b>	Defense Switched Network
<b>DSSM</b>	Defense Superior Service Medal
<b>DTC</b>	Developmental Test Command
<b>DTD</b>	Deputy Test Director
<b>DTIC</b>	Defense Technical Information Center
<b>DTP</b>	Detailed Test Plan
<b>EA</b>	Environmental Assessment
<b>EIS</b>	Environmental Impact Statement
<b>EMSEC</b>	Emissions Security
<b>ESG</b>	Executive Steering Group
<b>FCC</b>	Federal Communication Commission
<b>FEDEP</b>	Federation Development and Execution Process
<b>FFRDC</b>	Federally Funded Research and Development Center
<b>FOA</b>	Field Operating Agency (Air Force and Army)
<b>FONSI</b>	Finding of No Significant Impact
<b>FOUO</b>	For Official Use Only
<b>FR</b>	Final Report
<b>FSD</b>	Feasibility Study Director
<b>FYTP</b>	Five Year Test Program (Army)
<b>GCCS</b>	Global Command and Control System
<b>GOSC</b>	General Officer Steering Committee
<b>GOTS</b>	Government-Off-the-Shelf
<b>GPS</b>	Global Positioning System
<b>HLA</b>	High Level Architecture
<b>HQ USAF/TE</b>	Director of the Air Force Test and Evaluation
<b>ICD</b>	Interface Control Document
<b>IDA</b>	Institute for Defense Analysis
<b>IDRL</b>	Integrated Data Requirements List
<b>IGCE</b>	Independent Government Cost Estimate
<b>INFOSEC</b>	Information Security
<b>IPL</b>	Integrated Priority List
<b>IPR</b>	In-Progress Review
<b>ISR</b>	Intelligence, Surveillance, and Reconnaissance
<b>ISSA</b>	Inter-Service Support Agreement
<b>ITEA</b>	International Test and Evaluation Association
<b>I/APZ</b>	In/Above Promotion Zone
<b>JBMC2</b>	Joint Battle Management Command and Control
<b>JCME</b>	JBMC2 Capabilities Mapping Environment
<b>JELC</b>	Joint Exercise Life Cycle

<b>JFS</b>	Joint Feasibility Study
<b>JFSR</b>	Joint Feasibility Study Report
<b>JP</b>	Joint Publication
<b>JPO</b>	Joint Program Office
<b>JRCR</b>	Joint Resource Change Recommendation
<b>JROC</b>	Joint Requirements Oversight Council
<b>JSAM</b>	Joint Service Achievement Medal
<b>JSCM</b>	Joint Service Commendation Medal
<b>JT</b>	Joint Test
<b>JT&amp;E</b>	Joint Test and Evaluation
<b>JT&amp;E DPM</b>	Joint Test and Evaluation Deputy Program Manager
<b>JT&amp;E PM</b>	Joint Test and Evaluation Program Manager
<b>JTD</b>	Joint Test Director
<b>JTSC</b>	Joint Test Support Cell
<b>JWAG</b>	Joint Warfighter Advisory Group
<b>JWFC</b>	Joint Warfighting Center
<b>LNO</b>	Liaison Officer
<b>LRFP</b>	Letter Request for Proposal
<b>M&amp;S</b>	Modeling and Simulation
<b>MAJCOM</b>	Major Command (Air Force)
<b>MCCDC</b>	Marine Corps Combat Development Command
<b>MCO</b>	Marine Corps Order
<b>MEL</b>	Management Eligibility List
<b>MILPERS</b>	Military Personnel
<b>ML</b>	Management Level
<b>MOA</b>	Memorandum of Agreement
<b>MOU</b>	Memorandum of Understanding
<b>MSCO</b>	Modeling and Simulation Coordination Office
<b>MSRR</b>	Modeling and Simulation Resource Repository
<b>NAG</b>	National Assessment Group (SSO for JT&E)
<b>NEPA</b>	National Environmental Policy Act
<b>O&amp;M</b>	Operations and Maintenance
<b>OCA</b>	Original Classification Authority
<b>OPR</b>	Office of Primary Responsibility
<b>OPSEC</b>	Operational Security
<b>OPTEVFOR</b>	Operational Test and Evaluation Force (Navy)
<b>OSD</b>	Office of Secretary of Defense
<b>OTA</b>	Operational Test Agency
<b>OTP</b>	Outline Test Plan (Army)
<b>PC</b>	Planning Committee
<b>PCS</b>	Permanent Change of Station
<b>PES</b>	Performance Evaluation System
<b>PI</b>	Principal Investigator
<b>PID</b>	Program Introduction Document
<b>PM</b>	Program Manager

<b>PME</b>	Professional Military Education
<b>PM-JTE</b>	Property Manager, Joint Test and Evaluation
<b>POC</b>	Point of Contact
<b>PR</b>	Purchase Request
<b>PRF</b>	Promotion Recommendation Form
<b>PRO</b>	Public Release Official
<b>PTP</b>	Program Test Plan
<b>PWS</b>	Performance Work Statement
<b>QA</b>	Quality Assurance
<b>QLR</b>	Quick Look Report
<b>QRT</b>	Quick Reaction Test
<b>RIP</b>	Report of Individual Person (Air Force)
<b>RRE</b>	Risk Reduction Event
<b>SAC</b>	Senior Advisory Council
<b>SAP</b>	Special Access Program
<b>SCG</b>	Security Classification Guide
<b>SCI</b>	Sensitive Compartmented Information
<b>SCIF</b>	Sensitive Compartmented Information Facility
<b>SCPM</b>	Support Contractor Program Manager
<b>SecDef</b>	Secretary of Defense
<b>SES</b>	Senior Executive Service
<b>SME</b>	Subject Matter Expert
<b>SSO</b>	Special Security Officer
<b>SURF</b>	Single Uniform Retrieval Format (Air Force)
<b>T&amp;E</b>	Test and Evaluation
<b>TAB</b>	Technical Advisory Board
<b>TAG</b>	Technical Advisory Group
<b>TD</b>	Technical Director
<b>TDRM</b>	Test Data Requirements Matrix
<b>TDY</b>	Temporary Duty
<b>TEIN</b>	Test and Evaluation Identification Number (Navy)
<b>TER</b>	Test Event Report
<b>TERR</b>	Test Event Readiness Review
<b>TETR</b>	Test Event Technical Review
<b>TIR</b>	Test Incident Report
<b>TM</b>	Test Manager
<b>TPWG</b>	Test Plan Working Group
<b>TRP</b>	Test Resources Plan (Air Force)
<b>TSARC</b>	Test Schedule and Review Committee (Army)
<b>TSPI</b>	Time, Space, and Position Information
<b>TTP</b>	Tactics, Techniques, and Procedures
<b>US</b>	United States
<b>USA</b>	United States Army
<b>USAF</b>	United States Air Force
<b>USJFCOM</b>	United States Joint Forces Command

<b>USMC</b>	United States Marine Corps
<b>USN</b>	United States Navy
<b>USSOCOM</b>	United States Special Operations Command
<b>VCCO</b>	Vicksburg Contracting Office
<b>VTC</b>	Video Teleconference
<b>VV&amp;A</b>	Verification, Validation, and Accreditation
<b>VV&amp;C</b>	Verification, Validation, and Certification
<b>WBS</b>	Work Breakdown Structure
<b>WHS</b>	Washington Headquarters Service

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## ANNEX B DEFINITIONS OF TERMS

<b>Accreditation</b>	The official certification that a model, simulation, or federation of models and simulations and its associated data are acceptable for use for a specific purpose.
<b>Action Officer</b>	The JT&E Program Manager's liaison to the Joint Test and Evaluation projects who coordinates programmatic issues such as documentation deliverables, schedule, and budget.
<b>Architecture</b>	A framework or structure that portrays relationships among all the command elements of a military force, system, system of systems, or activity. Architectures are normally addressed in terms of the DOD's Architecture Framework document.
<b>Authoritative Data Source</b>	A data source whose products have been verified, validated, and certified. See data validation and data verification.
<b>Concepts</b>	Perceived ways of doing something that include combinations of systems, equipment, procedures, and personnel that will be used to accomplish a task. JTs that concentrate on concepts involve equipment and systems that are used in a new or different environment, procedure, or operation.
<b>Constructive Model or Simulation</b>	Models and simulations that involve simulated people operating simulated systems. Real people stimulate (make inputs) to such simulations, but are not involved in determining the outcomes.
<b>Criteria</b>	Statements of required technical, effectiveness, suitability, or logistics supportability performance requirements. Criteria are frequently expressed as thresholds that provide the basis for developing measures and identification of test data that are then used to answer the test issues. Criteria must be unambiguous and quantitative. Criteria are the values that a test article (test product) must meet to be acceptable to the intended user for implementation.
<b>Data Certification</b>	The determination that data have been verified and validated. Data user certification is the determination by the application sponsor or designated agent that data have been verified and validated as appropriate for the specific M&S usage. Data producer certification is the determination by the data producer that data have been verified and validated against documented standards or criteria.
<b>Data Collection</b>	A pre-planned procedural process that includes data collection instrumentation, manual data forms, and questionnaires resulting in the collection of data that have been delineated by the Integrated Data Requirements List contained within a test plan
<b>Data Element</b>	A basic unit of information in a pre-defined format or structure that is comparable with the data collection media and analysis methods used to analyze the data.
<b>Data Item</b>	A subunit of descriptive information, or value, classified under a data element. For example, the data element "military personnel grade" contains data items such as sergeant, captain, and colonel.

<b>Data Manager</b>	Individual responsible for detailed execution of the data collection plan that includes coordination with other agencies conducting data collection; placement, calibration, and data downloads from data collection instrumentation; data logging and retrieval from modeling and simulation systems used in a test event; training of all data collectors; pre-test rehearsals; coordination of data archiving, access, transport, control, security, and resolution of data anomalies recorded on the test incident report form.
<b>Data Validation</b>	The documented assessment of data by subject matter experts and its comparison to known values to determine its suitability for a specific purpose in an intended model or simulation.
<b>Data Verification</b>	For a data producer: use of techniques and procedures to ensure that data meet constraints defined by data standards and business rules derived from process and data modeling. For a data user: use of techniques and procedures to ensure that data meet user-specified constraints defined by data standards and business rules derived from process and data modeling, and that data are transformed and formatted properly.
<b>Data Verification, Validation &amp; Certification (VV&amp;C)</b>	The process of verifying the internal consistency and correctness of data, validating that it represents real world entities appropriate for its intended purpose or an expected range of purposes, and certifying it as having a specified level of quality or as being appropriate for a specified use, type of use, or range of uses. The process has two perspectives: producer and user process.
<b>Database</b>	A collection of data arranged for ease and speed of retrieval via a computer. Databases may exist in the form of physical files (folders, documents, and so forth) or formatted automated data processing system data files.
<b>Decomposition</b>	Breaking a test issue into its smallest constituent part from issue to lowest level sub-issues, to include associated MOEs and MOPs to identify the data element required to be collected in a test event.
<b>Dendritic</b>	The product of a branching tree-like decision analysis process used to decompose JT and QRT test issues into lower-level issues, measures, and data collection requirements.
<b>Designated Support Agent</b>	The organization or agency that is designated by competent authority to provide support to a JFS or JT.
<b>Detailed Test Plan (DTP)</b>	A document that provides coordination between all participating organizations and contains detailed information for the efficient conduct of a test and evaluation event. As a minimum, the DTP will contain background information, test concept, schedule of test activities, test methods, data collection instrumentation requirements, memorandum of agreements and understanding, data analysis and management, data collection forms, data collection plan, and other information required to execute the test event.

<b>Doctrine</b>	Fundamental principles by which military forces or elements guide their actions in support of national objectives. Doctrine is authoritative, but requires judgment in application. Doctrine is implemented through the application of tactics, techniques, and procedures (TTP). Doctrine rarely changes, whereas TTP change based on operational factors.
<b>Environmental Assessment (EA)</b>	A study required by the National Environmental Policy Act (NEPA) to determine if significant environmental impacts are expected from a proposed activity.
<b>Environmental Impact Statement (EIS)</b>	A report required by NEPA that describes the environmental consequences of a proposed activity.
<b>Exercise</b>	A military maneuver or simulated wartime operation involving planning, preparation, and execution. An exercise is carried out for the purpose of training and evaluation. It may involve combined, joint, or single Services and may serve as a test and evaluation venue for a JT mini-test or field test.
<b>FFRDC Support</b>	Support provided to a JFS or JT by a Federally Funded Research and Development Center (FFRDC) under the auspices and assignment of the JT&E Program Manager. FFRDCs are not-for-profit organizations that provide trusted agent support to federal government agencies.
<b>Field Test</b>	A field test is normally broad in scope with the intent to collect data on all aspects of or full application of all test articles in a realistic operational environment or a training exercise that closely simulates realistic operational conditions.
<b>Free Play</b>	Activities of exercise or test staff in response to stimuli provided by the control structure of an exercise where the stimuli are logical consequences of previous actions. In this context, an exercise is some representation of the real world intended as context for training of the participants.
<b>General Officer Steering Committee (GOSC)</b>	A group of flag-level officers from the Services interested in a particular issue or operational concept who are invited by the JTD, in coordination with Deputy Director, Air Warfare and JT&E Program Manager, to advise on issues of doctrine, policy, tactics, and legacy product transition. The intent is to capture and integrate Service representation in the JT at a senior officer level. A GOSC is required for all chartered JT&E projects.
<b>Instrumentation</b>	Equipment used during a test event to collect, monitor, and record test data during mini, field, and simulation test events. Calibration of instrumentation is a required factor that ensures there is no transient error in data collected during a test event.

<b>Integrated Data Requirements List (IDRL)</b>	An aggregation of all data requirements (controlled and uncontrolled), traceable to their issues and measures, that must be collected during a JT or QRT test event to answer the test issues and solve the joint problem. The IDRL contains takes the TDRM developed during the JFS and expands the level of detail to include the specific data sources, instrumentation requirements, data media, data structure, and data format. It should list the all details related to data collection for a test event. The IDRL is a key component of the DTP.
<b>Interface Control Document (ICD)</b>	Required document developed by the JTD for managing the integration of models and simulations that will be used in a test event, distributed and non-distributed. For distributed modeling and simulation planning, the JTD must convene a Test Planning Working Group to consist of representatives from all agencies participating to coordinate all interface and integration requirements.
<b>Issue</b>	An operational question that a JT or QRT project are chartered to answer. Issues are decomposed into lower-level sub-issues, also in question form. The measures and data elements are derived from the issues and sub-issues to support test planning and data collection requirements that lead to answering the issues.
<b>Joint Feasibility Study</b>	A seven-month study to determine the need and feasibility of a proposed joint test.
<b>Joint Test &amp; Evaluation Project</b>	Any one of three separate, but closely related, projects within the JT&E Program: JFS, JT, or QRT.
<b>Joint Test (JT)</b>	A test, up to three years in duration, whose results have the potential for significant improvements in joint capabilities.
<b>Joint Test Director (JTD)</b>	The person appointed as responsible for executing and directing a chartered JT. Must be an O-6 with test and evaluation experience and a background in the subject matter of the JT.
<b>JT&amp;E Program</b>	Those activities managed by DOT&E, Deputy Director, Air Warfare for the DOD, including all active and proposed JFSs, JTs, and QRTs. The JT&E program includes all functions such as the convening of JT&E Planning Committee (PC), Senior Advisory Council (SAC), Technical Advisory Board (TAB), and program and budget execution and oversight.
<b>Live Simulation</b>	A simulation involving real people operating real systems.
<b>Live, Virtual, and Constructive Simulation</b>	A broadly used taxonomy for classifying simulation types. The terms are most commonly used together to describe an all encompassing synthetic environment that can represent an operational environment for training, testing or experimentation. The categorization of simulation into live, virtual, and constructive is problematic, because the differentiation among them blurs in the context of real versus virtual presents.

<b>Measure</b>	A mathematical relationship that describes the operation or efficiency of a system, system of systems, or process. Stated in terms of measure of effectiveness (MOE) or measure of performance (MOP). Scaled questionnaire development techniques provide the means to specify quantifiable measures for subject-based data.
<b>Measure of Effectiveness (MOE)</b>	A quantifiable value that expresses the effectiveness of the system, system of systems, or process under test. An MOE must be calculated using collected test data.
<b>Measure of Performance (MOP)</b>	A quantifiable value that expresses performance or capability of a system, system of systems, or process under a specified set of conditions at the human-machine task level. The MOP is the next level of dendritic analysis decomposition below an MOE. An MOE can have one or more MOPs if the MOE is human-machine task oriented.
<b>Mini-Test</b>	A mini-test is normally narrow in scope with the intent to collect data on a specific aspect or application of a test article. Mini-tests are usually smaller scale tests involving limited participants or limited systems. JTs typically use mini-tests when only a single aspect of the test concept is present in a test or if concentrated testing needs to occur on a single test article. Mini-tests are usually conducted in a realistic operational environment or a training exercise that closely simulates realistic operational conditions.
<b>Model</b>	A physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process.
<b>Modeling</b>	Application of a standard, rigorous, structured methodology to create and validate a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process.
<b>Modeling &amp; Simulation</b>	The use of models, including emulators, prototypes, simulators, and stimulators, either statically or over time, to develop data as a basis for making managerial or technical decisions. The terms "modeling" and "simulation" are often used interchangeably.
<b>Modeling and Simulation (M&amp;S) Accreditation</b>	The official certification that a model or simulation is acceptable for use for a specific purpose.
<b>Nomination</b>	The response by COCOMs, Services, and DOD Agencies to bring joint problems, issues, and concepts to the attention of DOT&E as a potential JT or QRT. JT&E project nominations are in response to a DOT&E call for nomination letter; whereas, QRT project nominations can be submitted at anytime by a COCOM, or two or more military Services.
<b>Test Objectives</b>	Test objectives focus attention within a test event on accomplishing specific tasks or elements of the test concept required to answer the issues.
<b>Outline Test Plan (OTP) and Test Resource Plan (TRP)</b>	Resource requirements documents used by the Army and Air Force, respectively, for users to specify personnel and equipment requirements to be used in the support of joint test activities.

<b>Quick Look Analysis</b>	Those procedures established to ensure the amount and quality of data being collected during test activities complies with the IDRL contained in the DTP and is adequate for subsequent data analysis.
<b>Quick Reaction Test (QRT)</b>	A short duration test, normally less than 12 months, designed to expedite solutions to emergent joint operational problems.
<b>Reconstruction</b>	A post-test process that chronologically or sequentially orders all test data. Used to verify the accuracy of collected data.
<b>Risk Reduction Event</b>	An event to practice data collection and collect sample data in order to refine data collection forms and procedures, train data collectors, and prepare databases and analysis methods for actual test data. This allows the JT to refine their procedures and methods to ensure the JT has the ability and necessary practice to collect required data before conducting expensive test events. JTs may or may not conduct risk-reduction events in the same test venue as other test methods, but JTs cannot use data collected in risk-reduction events to refine test products (such as TTP), calculate measures, or answer test issues.
<b>Senior Advisory Council (SAC)</b>	An advisory body to the Director, Operational Test and Evaluation that reviews selected nominations, the results of JFSs and JTs, and recommends appropriate actions to the DD,AW.
<b>Service Deputy</b>	A senior person appointed by a Service to participate in a JT. This person serves as a functional member of the JT while representing the interest of the appointing Service and should be an O-4 or O-5 with test and evaluation experience and a background in the subject matter of the JT.
<b>Simulation</b>	A method for implementing a model over time.
<b>Simulation Test</b>	Simulation tests can be narrow or broad in scope and JTs usually conduct them to simulate particular systems or assets not available in mini-tests or field tests due to test limitations or constraints. Simulation test are typically conducted in laboratories or other facilities that allow the JT to replicate real systems or processes for the purposes of testing.
<b>Technical Advisory Board (TAB)</b>	A group of Service Operational Test Agency, SOCOM, and other DOD Agency senior scientists, engineers, and analysts who advise the JT&E Program Manager and SAC regarding the feasibility and executability, within schedule, of a proposed JT to answer a joint problem and resolve proposed test issues. The TAB also provides advice to Feasibility Study Directors regarding the proposed test concept that is intended to be executed in a JT.
<b>Technical Advisory Group (TAG)</b>	An advisory body formed by the Joint Test Director, at his discretion, to provide direct technical support and advice. The TAG composition is similar to the TAB but is not as senior, is tailored to a particular technical issue, and may include subject matter experts familiar with the operational concepts being addressed. When required, the JT&E Program Manager may formulate a TAG for the purpose of providing independent technical advice concerning the continued viability of the JT.



<b>Technical Director or Technical Advisor</b>	A JT team member designated by the JTD to advise on technical matters and to resolve any technical differences of opinion within the JT. The technical director or advisor is responsible for keeping JT activities focused on chartered concepts and/or issues. The distinction between the technical director and the technical advisor is that a technical director is empowered to directly supervise and direct all technical activities of a JT.
<b>Test</b>	The process and procedures that are based on sound scientific and analytical methods that include data collection methods, performing a rigorous, statistically-based analysis of the data that leads to an evaluation that places the test findings and conclusions in an operational perspective in terms of impacts on the warfighter or user. A test is the planning and execution of a test event based on statistical considerations such as required sample size and IDRL requirements.
<b>Test Article</b>	A test article is the item that is subject to data collection and analysis (i.e., what is being tested). For a JT&E project, it is typically joint tactics, techniques, and procedures (TTP), system of systems architecture, task-related process models, or test methodologies.
<b>Test Assumptions</b>	Test assumptions are what is “believed to be true” regarding a test event in the absence of fact. These are usually reasonable expectations, based on experience or past performance. Examples include, but are not limited to, the type of targets, weapons, tactics, command and control, threats, terrain, weather, and light conditions available in a test venue. Assumptions are relevant to the credibility of the test findings, conclusions, and recommendations. The FSD should validate assumptions as more information becomes available.
<b>Test Constraints</b>	Test constraints exist when the JT can replicate or obtain required data but the data is not of the required fidelity or quantity. An example would be testing in an exercise that has C2 nodes for an Army battalion instead of those for an Army brigade. They must be explicitly stated so the decision-maker has a complete understanding of how the test results should, or should not, be applied.
<b>Test Data Requirements Matrix (TDRM)</b>	The TDRM is an aggregation of data requirements, traceable to their issues and measures, for collection during the life of a JT or QRT to answer the test issues and solve the joint problem. It states the data elements necessary to calculate the measures, data sources, instrumentation, test conditions, and test events. Developing the TDRM is a key focus of a JFS that leads to development of a feasible and executable JT. The TDRM is a key component of the PTP.
<b>Test Event</b>	A collective term used to describe an event executed in consonance with an approved scenario, in a scheduled test venue, with Service-provided test resources, in a realistic operational environment for the purpose of generating and collecting data. A test event is supported by a detailed test plan and typically consists of numerous test trials.

<b>Test Limitations</b>	Test limitations exist when the JT cannot replicate or obtain required data. These are usually due to limited, scarce, or not available resources. An example would be testing in an exercise that does not have, and will not replicate, any Army C2 nodes even though these nodes are necessary to conduct the test event. There are usually no mitigations for a test limitation unless the JT can obtain the required data from another source. For each test limitation, the FSD must provide an assessment of its impact on solving the JT problem.
<b>Test Manager</b>	A JT member responsible for the planning, execution, and reporting of a specific test event.
<b>Test Planning Working Group (TPWG)</b>	A group of representatives, internal and external to a JT, who formally meet on a frequent basis to review, modify, and accept the responsibilities for executing specific activities in a test event per the coordination instructions contained within the JT and QRT detailed test plans. The JTD, or Technical Advisor, is the principal coordination authority for all TPWG activities that lead to the development and execution of a detailed test plan and simulation interface control document.
<b>Test Product</b>	The validated results and output, based on rigorous test and evaluation, of a JT or QRT that is intended to be implemented by the COCOMs, Services, or other agencies. Each test product must have a clearly identified owner early in the life of the JT&E project to ensure sufficient time is available for budgeting and transition prior to the JT&E project formal close down date. The JT&E Program does not pay transition costs of test products that the COCOMs, Services, and agencies have acknowledged responsibility to implement and institutionalize.
<b>Test Resource</b>	Test resources are the items of military equipment, operational personnel, facilities, ranges, C2ISR architecture, and so forth that are required to fully test and evaluate a test article. Essentially the test resource list is needed during negotiations with exercise planners to ensure a realistic operational environment to support IDRL data collection requirements. The JTD must ensure sufficient lead-time before each test event to effect coordination of required test resources to the test (exercise) site when required.
<b>Test Trial</b>	The execution of a test event that provides a single test exposure opportunity that is used to collect data. A test event may be composed of multiple test trials. For example, an aircraft sortie involves one takeoff and one landing, but during the flight, the aircraft may be exposed to “n” opportunities of radar detection. Each detection opportunity would be considered a test trial if data are collected. A test trial directly correlates to the test sample sizes (number of times that a data collection opportunity must occur).
<b>Validation</b>	The process of determining the degree to which a model or simulation is an accurate representation of the real-world from the perspective of the intended uses of the model or simulation.



<b>Verification</b>	The process of determining that a model or simulation implementation accurately represents the developer's conceptual description and specification. Verification also evaluates the extent to which the model or simulation has been developed using sound and established software engineering techniques.
<b>Virtual Simulation</b>	A simulation involving real people operating simulated systems. Virtual simulations inject human-in-the-loop in a central role by exercising motor control skills (e.g., flying an airplane), decision skills (e.g., committing fire control resources to action), or communication skills (e.g., as members of a C2 or ISR team).

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## ANNEX C ENVIRONMENTAL CONCERNS

### C.0 Introduction

Joint Test and Evaluation (JT&E) project test planning must consider the environmental effects of test events in the development of test plans and procedures. Failure to consider environmental compliance requirements could result in negative consequences to include test activity cancellation or unacceptable schedule delays in execution of the test event. Avoiding these consequences requires JT&E project directors to understand the requirements of the National Environmental Policy Act (NEPA), Environmental Quality Improvement Act, and associated Department of Defense (DOD) Directives.

It is important when planning test events to remember that DOD is the Federal leader in agency environmental compliance and protection. There are more than 40 Federal environmental statutes that could affect contemplated JT&E test events. States and local governments use these Federal regulations to derive their own environmental laws, which are usually more restrictive.

This annex provides information on environmental issues and procedures that might apply to JT&E projects. If test events under consideration are to be conducted on an established DOD training facility or major range test facility, coordination with local base or facility environmental personnel, and compliance with established federal, state, and local procedures should not be a problem. The same holds true for United States Joint Forces Command (USJFCOM), Combatant Command (COCOM), and Service sponsored training exercises. However, dedicated tests conducted completely or in part removed from DOD ranges and facilities will require a focused review on environmental law compliance and responsibilities. The penalties for violating environmental laws can be severe. For this reason, if there is any question regarding JT&E project director responsibility for environmental compliance, a legal review is essential. A joint feasibility study (JFS) must begin coordinating environmental compliance during the development of the test concept and a joint test (JT) must include specific procedures for environmental compliance in detailed test plans.

Most military or government test facilities have their own environmental departments that have completed many environmental impact studies and subsequent statements based on previous test events. JT&E projects may use these environmental impact statements provided they had similar test requirements. If the test event has unique test requirements that will drive a fresh Environmental Assessments (EA) or Environmental Impact Statements (EIS), it's worth noting an EA typically takes 6-12 months to complete, and an EIS can take 18-24 months! In addition, the JT&E project may be required to fund a portion or all of the costs involved.

If the JT&E project will conduct test events on non-DOD lands or test events that require the transport of equipment or materials over public transportation systems, the JT&E project director must become familiar with, and consider the possible impact of, environmental directives and regulations for the areas of interest. JT&E projects can obtain a copy of these directives and regulations by contacting the environmental offices at DOD test and training ranges and/or Environmental Protection Agency (EPA) Regional Offices. The EPA Regional Office can also provide assistance relative to state and local regulations for the test activity planned and the area of interest.

## C.1 Test Activity Considerations

The environmental challenge for a JT&E project director is the identification of proposed test execution actions that might produce adverse biological, ecological, or socioeconomic effects. Some test events will have no impact on these areas. In others, the projected impact might range from low to severe. In any case, the planned test events must comply with environmental laws and regulations. Two basic tenants of these laws and regulations are:

- Test activity procedures must ensure that environmental information is available to decision makers and citizens
- Test plans must consider reasonable alternatives to avoid or minimize adverse environmental effects

Classification of environmental regulations is either procedural or substantive. The NEPA requires all Federal agencies to consider environmental impacts during the decision-making process regarding proposed test events. Depending on whether a proposed test event could significantly affect the environment, one of three levels of analysis is required: (1) Categorical Exclusions (CATEX), (2) EA, and (3) EIS.

CATEX is a test event that does not have a significant individual or cumulative effect on the environment or previously found to have no such effect. DOD Directive 6050.7, Environmental Effects Abroad of Major Department of Defense Actions addresses CATEXs outside the United States. There is no DOD directive that addresses CATEXs inside the United States.

An EA is an analysis of the potential environmental impact of a proposed test event. An EA may be required when the JT&E project cannot determine beforehand whether the test activity under consideration will affect the environment or will be controversial with respect to environmental effects. If required, the EA will conclude either that the test activity will not significantly effect the environment, thus resulting in the preparation of a Finding of No Significant Impact (FONSI), or will conclude that the test activity could have a significant impact.

EIS identify test events that could involve potential environmental impacts. JT&E projects must consider the environmental impact of proposed test events in the selection of the test method for conducting the planned test events at specific locations. If the JT&E project anticipates an environmental impact and there is no alternative test method, the JTD may be required to conduct an EIS. More information on EISs is available on the EPA website. The following are characteristics of an EIS:

- An EIS is a formal consideration of environmental consequences. It addresses the nature of the test activity and its potential impact on the environment. The EIS must address all measures to minimize these impacts and alternatives to the proposed test activity, to include the consequences of not doing the entire test.
- An EIS is both complex and lengthy
- The length and cost of an EIS can be extensive and may require several man-years of specialized analytical effort to complete. Thus, the requirement for the identification of a potential EIS requirement and the resultant impact on a JT&E and the proposed test events cannot be overemphasized.
- It is possible to have an EIS prepared by a contractor.

## **C.2 Environmental Impact Considerations**

The JT&E project director should include, as a minimum, the following in their consideration of environmental impacts:

- Determine the test activity scenario, location, test resources (for example, military hardware and personnel) environmental concerns, and considerations.
- Determine if test facility has environmental impact statements that would be applicable to the proposed test activity. The test facility managers will know what requirements the JT&E project can fulfill and those that need further study.
- Determine what environmental impact actions are on going that relate to the JT&E project's planned test events.
- Determine if environmental actions will be required, estimate associated cost, and time to accomplish.
- Consider other test planning options.

## **C.3 Test and Evaluation Issues**

The following is a list of some environmental issues the JT&E project should consider:

- Weapon Firing (noise, air emissions, and type of munitions)
- Consumables (chaff and flares)
- System maintenance (waste solvents and oils)
- Vehicle operation (noise, terrain impacts, and air emissions)
- Contamination of land resources and unexploded ordnance
- Accidents involving hazardous materials
- Test site cleanup
- Land use management
- Wildlife protection
- Archaeological and historical resources

## **C.4 Public Involvement**

Public participation in preparing EAs and EISs is a reality the JT&E project will have to consider. Should a test activity involve the potential for environmental impact, the JT&E project director must establish appropriate communications with local authorities and interested parties. In determining the extent to which public participation could be required, the JT&E project director must consider the following factors:

- The magnitude of the environmental considerations associated with the proposed test activity
- The extent of anticipated public interest
- Relevant questions of national security and classification

## **C.5 Classified Test Events**

Environmental considerations, like other aspects of classified testing, should be coordinated with all applicable security offices prior to initiation of any actions. A fictitious example would be when a classified piece of test hardware radiating a classified signal at a classified facility. This situation involves several distinct security components. JT&E projects must plan test events to satisfy environmental concerns to accommodate the distinct security requirements of each component. Classified test events must comply with the same environmental laws, regulations, and directives as unclassified test events. JT&E projects will need to prepare, safeguard, and

disseminate EISs and EAs according to the requirements applicable to the classified information. When feasible, organize the documents so that classified portions are included as appendices, and unclassified portions are available to the public.

A classified EA and EIS serves the same informed decision making purpose as the unclassified versions. Even though the classified EA and EIS do not undergo full public review and comment, it will be part of the information package for each JT&E test planning activity. The content of a classified EA and EIS must meet the same content requirements that are applicable to a published unclassified version.

### **C.6 JT&E Foreign Test Event**

The environmental situation of a joint test conducted outside the territories of the United States will depend on the requirements and standards set by the host nation and Status of Forces Agreement. Thus, if considering a test event at a non-United States location, the JT&E project director must become familiar with the specific regulations that apply to testing in the host country and the specific locale within that country. All United States facilities located outside the territories of the United States are required to conduct their test events in an environmentally safe manner and in compliance with both host country and United States regulations relating to environmental, natural resource protection, and occupational health and safety. The two major United States directives that apply are:

- DOD Directive 6050.7, Environmental Effects Abroad of Major Department of Defense Actions
- EO 12114, Environmental Effects Abroad of Major Federal Actions

### **C.7 DOD Points of Contact for National Environmental Policy Act (NEPA) Assistance**

#### **ARMY**

HQ Army Materiel Command  
ATTN: AMCOPS-IEI  
5001 Eisenhower Ave  
Alexandria, VA 22333-0001

#### **NAVY**

CNO Environmental Readiness Division (N45)  
2000 Pentagon  
Washington, DC 20350

#### **AIR FORCE**

Deputy Assistant Secretary of the Air Force (Science, Technology and Engineering)  
(SAF/AQRE)  
1060 Air Force Pentagon  
Washington, DC 20330-1060

#### **MARINE CORPS**

Assistant Commander, Engineering (ACENG)  
2033 Barnett Avenue, Suite 315  
Quantico, VA 22134-5010

## ANNEX D CONTRACTOR TECHNICAL SUPPORT

### D.0 Introduction

This chapter describes the procedures for obtaining and managing contractor technical support to the Joint Test and Evaluation (JT&E) Program and its projects. These procedures include both contract management and funds management.

The JT&E Program is supported by a five-year, plus five year option, multiple award contract (awarded to four companies), with individual task orders that are awarded for periods generally not to exceed three years. Each requirement for contractor technical support, called a task, is competed amongst the four companies. The Feasibility Study Director (FSD), Quick Reaction Test (QRT) Director, Joint Test Director (JTD), or program Contracting Officer's Technical Representative (COTR) defines the requirement, prepares the task order [also called a Performance Work Statement (PWS)], evaluates proposals, and supervises the execution of the task.

The United States Army Corps of Engineer Vicksburg Contracting Office (VCCO) provides the contracting officer and manages the four contracts and all task orders awarded under them.

### D.1 Task Order Management

#### D.1.1 Task Order Award Process

Table D-1 summarizes the sequence of Office of Primary Responsibility (OPR) actions required to award or modify a JT&E task order requirement.

**Table D-1. Task Order Award Process**

Step	OPR	Action	Description
I	COTR	Submit task to Contract Specialist copy furnish to the JT&E Deputy PM	<p>The COTR submits the task order (PWS) for review and/or approval (via e-mail) to the Contract Specialist copy furnish to Deputy PM-JTE. As a guide in preparing the task, refer to Program Work Statement, Task Order Procedures, Contractor Labor Categories, Contract Line Item Number (CLIN) Descriptions, and Sample Tasks #1 and #2 (contact JPO for forms).</p> <p>U.S Army Corps of Engineers Vicksburg Consolidated Contracts Office (VCCO) ATTN: Mrs. Laurie Bagby 4155 E. Clay Street Vicksburg, MS 39183 (601) 631-7901 laurie.bagby@mvk02.usace.army.mil</p> <p>Mr. Willie Thomas ERDC-WES-ZAV</p>

Step	OPR	Action	Description
			3909 Halls Ferry Road Vicksburg, MS 39180 (601) 634-2826 Willie.H.Thomas@erdc.usace.army.mil
2	JT&E Deputy Program Manager	Review and approve task	The PM-JTE reviews the task, resolves questions and concerns with the COTR (via e-mail), and approves the task.
3	COTR	Forward task to contracting officer	The COTR forwards the approved task to: U.S Army Corps of Engineers Vicksburg Consolidated Contracts Office (VCCO) ATTN: Mrs. Lynnieste Cosey-Mayfield 4155 E. Clay Street Vicksburg, MS 39183 Lynnieste.cosey-mayfield@mvk02.usace.army.mil *Note: always send e-mail to both POCs: Contracting Officer and Contract Specialist
4	COTR	Prepare and submit Independent Government Cost Estimate (IGCE) to contracting officer	The COTR prepares the IGCE (to include skill mix, labor hours, breakout of material, and all other estimates that may be required under the task) and submits it to the contracting officer. Note: IGCE must be received by the contracting office prior to Step 5 (below) occurrence.
5	VCCO	Send Letter Request for Proposal (LRFP) to contractors	<ul style="list-style-type: none"> <li>The contracting officer sends (e-mails) an LRFP to all companies unless one of the four exceptions to competition applies: <ul style="list-style-type: none"> <li>Urgency</li> <li>Only one contractor is capable of performing the task</li> <li>It is a logical follow on to an existing task</li> <li>It is necessary to place an order to satisfy the minimum guarantee</li> </ul> </li> </ul>
6	Contractor	Submit proposals to contracting officer	Each contractor submits a proposal to the contracting officer within 5 working days (cost and/or price proposal only), 10 working days (Joint Feasibility Study and Quick Reaction Test proposal), 15 working days (JT proposal), or 5 working days (Test and Evaluation).
7	VCCO	Send contractor proposals to COTR for evaluation	The contracting officer sends (e-mails) copies of each contractor proposal to the COTR (usually done the same day as receipt of proposals).



Step	OPR	Action	Description
8	COTR	Evaluate proposals	The COTR evaluates each contractor proposal in accordance with the Order Procedures using the Proposal Evaluation Checklist. If the COTR cannot make a selection based on the contents of the contractor proposal and needs further information, then the COTR contacts the contracting officer and, if necessary, the contracting officer initiates discussions or negotiations with the contractor. (Note: only the contracting officer may open discussions or negotiations.)
9	COTR	Submit selection to contracting officer	The COTR may select any of the companies to perform the entire task or specific areas of it in accordance with the Task Order Procedures. When the evaluation is complete, the COTR submits the results in a letter to the contracting officer. All task evaluation checklists will be enclosed in this letter.
10a	COTR	Provide request for funds to JT&E Program Analyst	The COTR request funds via e-mail as soon as possible after contractor selection. The e-mail should provide the breakdown by CLIN. The COTR may fully fund the task or provide funds in increments.  JT&E Program Analyst Attn: LaTonya Moore 3909 Halls Ferry Rd. Building 1000 Vicksburg, MS 39180 (601) 634-2960 E-mail: LaTonya.Moore@erdc.usace.army.mil
11	JT&E PA	Prepare purchase request (PR) package and forward to contracting officer	The JT&E Program Analyst prepares a PR package consisting of the following: <ul style="list-style-type: none"> <li>• PR (, Purchase Request)</li> <li>• MIPR (DD Form 448, Direct Cite)</li> </ul>
12	VCCO	Prepare and award task order	The contracting officer processes and awards the task order and sends an electronic notification to the COTR within two working days. Further distribution is the responsibility of the COTR.
13	COTR	Monitor contractor task order performance and funds expenditures	The COTR monitors performance and funds expenditures during the execution of the task order in accordance with the following criteria: <ul style="list-style-type: none"> <li>• Is task progressing on schedule?</li> <li>• Are sufficient funds available on each CLIN?</li> <li>• Is a modification to the task order required to add funds (CLINs)?</li> </ul>

Step	OPR	Action	Description
			<ul style="list-style-type: none"> <li>Are all requirements in the task order being performed?</li> </ul> <p>The COTR ensures correct CLINs have been awarded in the task order and sufficient funds have been applied to each CLIN:</p> <p>001AA Labor</p> <p>001AB Travel and Other Direct Cost</p> <p>The COTR:</p> <ul style="list-style-type: none"> <li>Approves all material purchases in writing prior to occurrence.</li> <li>Approves all contractor travel in writing prior to occurrence.</li> <li>Approves all contractor SME labor hrs in writing prior to occurrence.</li> </ul> <p>The contractor and COTR, working together, notify the contracting officer when they identify requirements for additional work, material, relocation, travel, and so forth (prior to occurrence).</p> <p>The COTR may provide technical direction to the contractor, but they are not authorized to change any of the contract requirements, issue new assignments of work, or cause the contractor(s) to incur costs in excess of the total amount of the task.</p> <p>The COTR monitor the contractor's performance to ensure the required services are being performed (Surveillance Forms, Appendix 11). If the COTR determine the contractor's performance to be unsatisfactory, they will notify the contracting officer who will notify the contractor in writing of specific deficiencies to allow for corrective action and restoration of performance to a satisfactory level.</p>
14	All	Modify the task order (if necessary)	If the COTR identifies additional task requirements, or an expansion of the requirements in the current task order, steps 2-13 will be followed to process a contract modification for the task order.

### D.1.2 Milestones for the Task Order Award Process

Table D-2 illustrates the significant milestones from receipt of task to award. The step number on the left-hand side of the chart corresponds to the step of the task order award process described in Table D-1.

**Table D-2. Milestones**

Step(s)	Working Days	Description
5	2	Contracting officer reviews task and sends LRFP to contractors.
6	5-15	Contractors prepare proposals. The proposals are due to the contracting officer within 5 working days (cost proposal only), 10 working days (Joint Feasibility Study proposal), or 15 working days (JT proposal)
8, 9	5-10	COTR evaluates proposals and makes selection.
11	1-5	Resource analyst receives the MIPR and prepares the PR package.
12	2-5	Contracting officer prepares and awards task order.
-	15-37	Total days

**D.2 Points of Contact**

Table D-3 lists government points of contact (POCs) for the JT&E Program.

**Table D-3. Government POCs**

Title	POCs
JT&E Program Manager	Jim Thompson 4850 Mark Center Drive, 10th Floor Alexandria, VA 22311-1772 (703) 681-5525 E-mail: jim.Thompson@osd.mil
JT&E Deputy Program Manager	Willie Thomas 3909 Halls Ferry Road Vicksburg, MS 39180 (601) 634-2826 E-mail: willie.h.Thomas@erdc.usace.army.mil
Contracting Officer, VCCO	U.S Army Corps of Engineers Vicksburg Consolidated Contracts Office (VCCO) ATTN: Mrs. Lynnie Cosey-Mayfield 4155 E. Clay Street Vicksburg, MS 39183 Lynnie.cosey-mayfield@mvk02.usace.army.mil
Contract Specialist, VCCO	U.S Army Corps of Engineers Vicksburg Consolidated Contracts Office (VCCO) ATTN: Mrs. Laurie Bagby 4155 E. Clay Street Vicksburg, MS 39183 (601) 631-7901 laurie.bagby@mvk02.usace.army.mil
JT&E Program Analyst	LaTonya Moore 3909 Halls Ferry Road, Building 1000 Vicksburg, MS 39180 (601) 634-2960 LaTonya.Moore@erdc.usace.army.mil

Contractor information for the JT&E Program is in Table D-4.

**Table D-4. Contractor POCs**

<b>Contract No.</b>	<b>Company</b>
W91C9G-07-D-0001	Wyle Laboratories, Inc. POC: Charles (Bert) Johnston 301-863-4465 E-Mail: bert.johnston@wylelabs.com
W91C9G-07-D-0002	Science Applications International Corp. (SAIC) POC: Dave Rolston 757-686-9818 E-Mail: david.a.rolston@saic.com
W91C9G-07-D-0003	Bevilacqua Research Corp. (BRC) POC: Andy Bevilacqua 256-882-6229 ext. 102 E-Mail: andyb@brc2.com
W91C9G-07-D-0004	Scientific Research Corp. (SRC) POC: Rich Kniskern 757-460-1724 x 223 E-Mail: rknisker@scires.com

### **D.3 Other References**

Please contact the JT&E Program Office for the following documents and forms (Table D-5), as needed.

**Table D-5. Other Documents and Forms**

<b>Document</b>	<b>Title</b>
D-1	Performance Work Statement
D-2	Task Order Procedures
D-3	Contractor Labor Categories
D-4	Contract Line Item Number Descriptions
D-5	Sample Task Order - JT&E and/or QRT
D-6	Sample Task Order - JFS
D-7	Sample Letter Request for Proposal
D-8	Proposal Evaluation Checklist
D-9	Proposal Selection Letter
D-10	Sample Military Interdepartmental Purchase Request
D-11	Surveillance Requirements and Sample Surveillance Logs

## ANNEX E GOVERNMENT PERSONNEL

### E.0 Introduction

This annex describes the various personnel policies and procedures for the Joint Test and Evaluation (JT&E) Program. It provides procedures for obtaining qualified staffing, submitting performance reports, and recommending personnel for joint awards. The annex also provides a list of applicable Army Regulations and Pamphlets, Air Force Instructions, and Marine Corps Orders to include website references.

Most of the policies and procedures in this annex apply only to a joint test (JT) since there is little military staffing support to a joint feasibility study (JFS) and different staffing procedures apply to a quick reaction test (QRT). For a JFS, the sponsor has the responsibility of providing the Feasibility Study Director (FSD) and any other government staffing support required. For a QRT, the process for obtaining military and government civilian personnel rests with the Operational Test Agency (OTA). Once the Executive Steering Group (ESG) approves a QRT, one of the four OTAs accepts responsibility as lead for managing, planning, and conducting the QRT. One or more of the other OTAs will likely assume the role of supporting Service for the QRT.

### E.1 References and Points of Contact

Differing Service personnel policies have often resulted in inconsistent application of personnel policies across the various joint tests. The following Service directives, regulations, and instructions are used in this policy and should be referenced for all personnel reports and awards:

Army Regulation (AR) 623-3, Evaluation Reporting System, March 15, 2006;  
[http://www.army.mil/usapa/epubs/pdf/r623\\_3.pdf](http://www.army.mil/usapa/epubs/pdf/r623_3.pdf)

Marine Corps Order (MCO) P1610.7F, Performance Evaluation System (PES), May 11, 2006;  
[http://www.usmc.mil/directiv.nsf/0dce83e13c9c8aa685256c0c0066c2e0/20908e150ab76d12852571b1005fcd3f/\\$FILE/MCO%20P1610.7F.pdf](http://www.usmc.mil/directiv.nsf/0dce83e13c9c8aa685256c0c0066c2e0/20908e150ab76d12852571b1005fcd3f/$FILE/MCO%20P1610.7F.pdf)

Department of the Navy Bureau of Personnel Instruction (BUPERSINST) 1610.10A, Navy Performance Evaluation System, September 20, 2005;  
[http://buperscd.technology.navy.mil/bup\\_updt/upd\\_CD/BUPERS/Instructions/161010.pdf](http://buperscd.technology.navy.mil/bup_updt/upd_CD/BUPERS/Instructions/161010.pdf)

Air Force Instruction 36-2406, Officer and Enlisted Evaluation Systems, April 15, 2005;  
<http://www.e-publishing.af.mil/pubfiles/af/36/afi36-2406/afi36-2406.pdf>

Washington Headquarters Services Joint Awards Guide, January 2000;  
<http://www.whs.mil/HRD/Military/Awards.cfm>

Department of Defense (DOD) Manual 1348.33, Manual of Military Decorations and Awards, September 1996 (with change 1, dated September 18, 2006);  
<http://www.dtic.mil/whs/directives/corres/pdf/134833m.pdf>

Office of the Secretary of Defense (OSD) Administrative Instruction No. 29, Incentive and Honorary Awards Program, July 1, 1999 (with change 4, August 13, 2002);  
<http://www.dtic.mil/whs/directives/corres/pdf/a029p.pdf>

Other sources of information and points of contact (POC):

Army Human Resource Center (HRC) (703) 325-6099, <https://www.hrc.army.mil>

JT&E Reps: James Lee (703) 602-7668, DSN 332, [james.lee@2@hqda.army.mil](mailto:james.lee@2@hqda.army.mil)

LTC Terry Haines (703) 325-0310, DSN 221, [terry.haines@atec.army.mil](mailto:terry.haines@atec.army.mil)

Marine Corps Manpower, Management Support Branch, (703) 784-3993,

[https://www.manpower.usmc.mil/portal/page?\\_pageid=278,1&\\_dad=portal&\\_schema=PORTAL](https://www.manpower.usmc.mil/portal/page?_pageid=278,1&_dad=portal&_schema=PORTAL)

JT&E Reps: Major Steve Tynan (703) 784-3610, DSN 278, [stephen.tynan@usmc.mil](mailto:stephen.tynan@usmc.mil)

Robert (Mac) McKinney (703) 784-1339, DSN 278, [robert.mckinney.ctr@usmc.mil](mailto:robert.mckinney.ctr@usmc.mil)

Navy Personnel Command (866) 827-5672, <http://www.bupers.navy.mil>

JT&E Rep: Keith Kirol (703) 601-2030, DSN 329, [keith.kirol@navy.mil](mailto:keith.kirol@navy.mil)

Air Force Personnel Command (210) 565-5000, <http://www.afpc.randolph.af.mil/>

JT&E Reps: Steve MacLeod (703) 697-0322, DSN 227, [stephen.macleod@pentagon.af.mil](mailto:stephen.macleod@pentagon.af.mil)

Lt Col Barry MacNeill (702) 404-2955, DSN 384, [barry.macneill@nellis.af.mil](mailto:barry.macneill@nellis.af.mil)

## **E.2 Obtain Qualified Staffing**

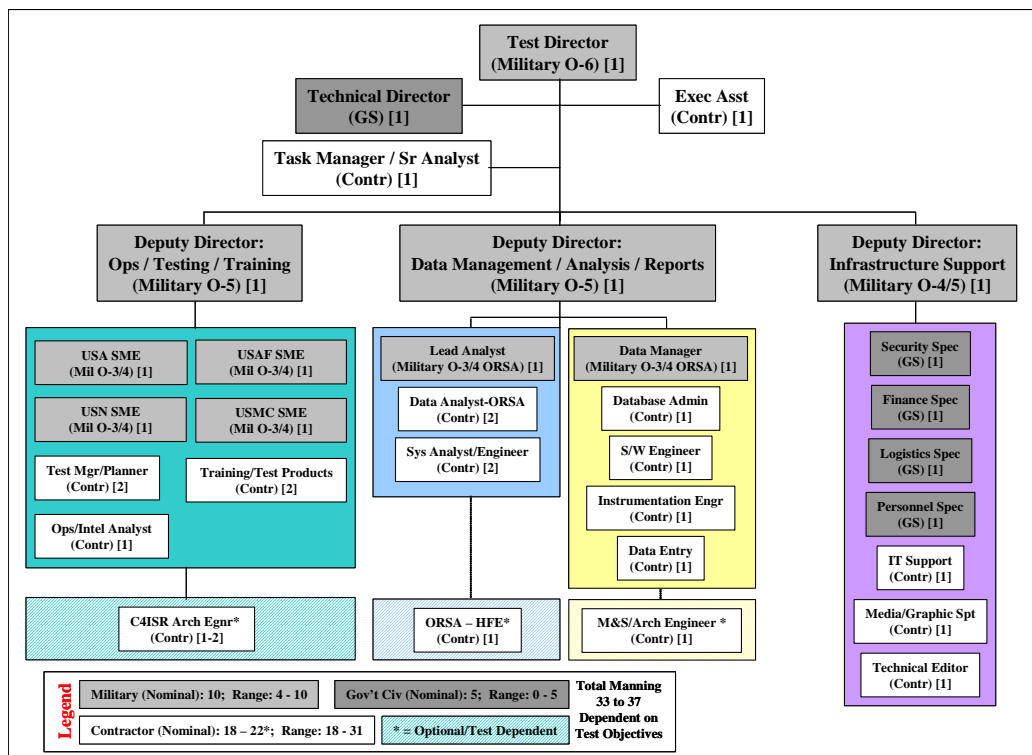
One of the first and most challenging tasks for the Joint Test Director (JTD) is to obtain government staffing with qualified and experienced personnel in a timely manner. Retention of these personnel for the duration of the JT is also a consideration. Maintaining government personnel also presents a challenge. Normal professional military education (PME) opportunities, promotions, retirements, and separations can take on special challenges for a JT because the Services are reluctant to backfill a position for only one or two year's duration. Real-world operational requirements may affect availability of a JT's military personnel. Finally, military personnel will begin to execute permanent change of station orders (PCS) at varying times as a test closes down. In such cases, and particularly if the required skills are critical during the final phases of the JT, the JTD should attempt to acquire personnel with requisite skills on a temporary basis. Estimated manning requirements for the JT were established by the JFS and were a major factor in the chartering decision.

When the Senior Advisory Council (SAC) recommends approval of the JT, each member on the SAC has indicated an interest in committing their Service to provide the required resources to execute the JT. The JTD must understand that the Service has a specific process for assignment of personnel that is often based on Service interest in the JT subject area. It is incumbent on the JTD to actively engage each Service and convince them of the utility of the proposed JT to each Service. When the Services agree to provide personnel resources, it is not instantaneous. The Service personnel systems can take up to 10-14 months to provide PCS personnel. The JT may have to operate for roughly a year or more before full staffing is provided. The JTD must quickly review the manning requirements established by the JFS, revise them as required, and submit them to the Service POCs for entry into their Service personnel systems. The JTD should recognize that even with early JFS coordination of JT manning requirements with the Service

personnel centers, 10-14 months might be required before any PCS personnel actually arrive on station.

Designation as the lead Service carries the responsibility of supporting the JT by providing the JTD a Service deputy, the majority of Service personnel, Civil Service personnel, administrative personnel, and assistance in the areas of secretarial support, travel, contracting, personnel administration, comptroller, supply, and logistics. The participating Services will provide Service deputies and a balanced percentage of personnel, both PCS and temporary duty (TDY), for the conduct of the JT. All Service-assigned PCS personnel should be on a dedicated, full-time basis at the JT location. The following lists typical government staffing requirements.

While a JT can tailor most organizational structures to the functions of a JT, a simple structure based on the primary functions will probably work best. The selected organizational structure should provide a clear chain of responsibility and accountability activity and task. Figure E-1 is an example of such an organizational structure. The JT should tailor the organizational structure to accommodate the unique nature and technical complexity of a JT. The JTD has the ultimate responsibility for the successful completion of the JT on time and within budget. The JTD reports to the Deputy Director for Air Warfare (DD,AW) via the JT&E Program Manager (PM). The JTD must maintain both an OSD and joint perspective throughout the duration of the JT. The Service deputies are dual-hatted positions and serve as both the senior representatives from their Services and as deputy directors of functional divisions. The Technical Director is the focal point for resolving differences in technical ideas and opinions to maintain the focus of JT efforts on resolving the problem and answering test issues.



**Figure E-1. Example of an Organizational Structure**



The typical three-year JT time period can be negatively impacted due to delays in obtaining military and civil service personnel, the training of unqualified personnel, and the inefficiencies inherent in the use of part-time or additional-duty personnel. Should the Service personnel systems not accommodate the JT's personnel requirements in a timely manner, the director should consider the use of qualified contractor personnel. A JT can obtain contractor support using the Joint Test and Evaluation Engineering, Analysis, and Test Support to the OSD contract. DD,AW and the JT&E PM manage the OSD JT&E support contract, which is the primary contract vehicle for obtaining contractor support for a JT. See Annex D for additional information relative to obtaining contractor support.

### **E.2.1 Program Management Personnel**

Program management personnel would ideally be the FSD who would become the JTD after the JFS transitions to a JT. If not, the lead Service must nominate a JTD to DD,AW, via the JT&E PM, and fill one of the Deputy Test Director (DTD) positions. The JTD is required to be a military officer in the grade of O-6. The Deputy Test Director should be an O-5 with experience in the operational subject addressed by the JT. The positions should reflect a balanced mix of management and leadership experience to include test planning and execution experience.

### **E.2.2 Technical Personnel**

Technical personnel with test and evaluation experience in the areas pertinent to the test issues are critical. The Technical Director is a grade level GS-14 or GS-15, normally provided by the lead Service, who should be familiar with the JT subject matter and have experience in operations analysis, test planning, test execution and reporting, data collection methods and instrumentation, and applied statistics. The Technical Director should also have experience in managing technical teams since his primary responsibility is to review technical progress, test documentation, and resolve technical issues.

### **E.2.3 Data Management Personnel**

Data management personnel will be required with experience in planning and directing test events that can include mini-tests, field tests, and simulation tests. They should be knowledgeable of operational and logistical factors such as data collection instrumentation requirements associated with the conduct of such testing. Personnel best qualified for these positions are those who have performed test management functions with a Service OTA or a previous JT. The JTD must always keep in mind that the purpose of conducting a JT is to collect realistic operational data used to answer the test issues and resolve the stated problem. The Data Manager is one of the most important positions in a JT organization.

### **E.2.4 Military Operations Personnel**

Military operations personnel will be required who possess current knowledge and experience in the operational aspects of the JT subject matter. These individuals should understand the JT problem and issues from a joint perspective and from the perspective of their parent Service. They should also be versed in Service missions, doctrine, tactics, techniques, procedures, and test requirements that are applicable to the JT problem and test issues.



**E.2.5 Operations Research and Systems Analysis Personnel**

The JT will require operations research and systems analysis personnel with experience in design of experiments, statistics, and related scientific disciplines. They must also be able to apply these skills to test planning, test concept development, execution, analysis, evaluation, and test report-writing activities. This experience should include developing test designs, identification of test measures using the dendritic analysis process, defining evaluation criteria and data collection methods, determining statistical requirements, identifying data analysis requirements and procedures, using automated and manual analysis tools, development and analysis of questionnaire and survey methods, and applying modeling and simulation techniques to test data requirements. This position is critical to the success of the JT.

**E.2.6 Instrumentation Personnel**

Instrumentation personnel may be required with an engineering background and operational experience in the identification and application of various data collection instrumentation and control systems employed in the JT. Required experience includes understanding the use of data collection systems and how to integrate instrumentation systems with appropriate interfaces for military weapon and command and control (C2) systems. Engineering experience may be required to identify the technical parameters and requirements associated with collecting data to satisfy the test objectives. By extension, the instrumentation personnel must also identify and coordinate the technical means and types of instrumentation required to collect these data with analysis personnel to ensure data integrity. If the JT involves field operations, persons with skills in communications systems and data transfer will be required, including microwave relays, time-space position information, human-machine data collection methods, cellular phones, radios, and radio relays.

**E.2.7 Intelligence Personnel**

Intelligence personnel may be required with training and experience in threat analysis and both tactical and national intelligence systems and employment procedures. These personnel will be required for those test events that involve scenarios with the employment of threat simulators and systems.

**E.2.8 Database Development Personnel**

Database development personnel will be required with training and experience in the development of databases and the documentation, maintenance, and configuration control of databases and related software products.

**E.2.9 Resource Management Personnel**

Trained resource management personnel with experience in supply, logistics, and budget and fiscal matters are required. While the JT may receive a portion of this type of support from outside agencies (host installation), the JTD will need core resource management personnel for day-to-day operations. These personnel should also have experience in property administration, tracking procurement activities, transferring property, providing audit trails for transactions, and the handling of shipping and receiving documents. The size of this

personnel requirement will depend on the scope and size of the JT facility and quantity of equipment acquired and maintained.

The tracking, management, and reporting of JT fiscal matters is extremely important. Therefore, it is important that each JT have a financial manager, preferably experienced in the OSD and Service budgeting, funding, and accounting. The duties of the financial manager will include the transfer of fiscal authorizations and the tracking and reporting of funding commitments, obligations, expenditures, and disbursements.

In addition to financial management, all JTs will have purchasing requirements that range from paper clips to computers, as well as vehicles and other major assets purchased through several means. Although the lead and participating Service finance centers will be supported the JT military and civilian pay, the JTD should have someone on the staff with expertise regarding the Service pay systems to process travel reimbursements.

#### **E.2.10 Security Personnel**

The JT will require trained security personnel who have experience in physical and operational security (OPSEC). OPSEC considerations are likely to be a major factor in the conduct of JT&E project activities. Technical assistance in the security area may be available through the lead Service POC to include developing security classification guides, establishing required security levels for personnel, and obtaining personnel security billets.

#### **E.2.11 Administrative Personnel**

Administrative personnel will be required with experience ranging from the establishment and maintenance of files to the use of computers and word processors, technical editing of written documents, use of graphics and spreadsheet software programs, and the preparation and submission of military performance reports. The JTD should not underestimate this requirement. A considerable amount of the JTD's work will involve the development and maintenance of test-related documentation and the preparation of reports.

### **E.3 Military Reports**

#### **E.3.1 Overview**

For all Services, the JTD must generate military performance reports as required by the parent Services of the personnel assigned to the JT. Each Service has different reporting timeframes and procedures. It is incumbent on the JTD to become familiar with the personnel performance reporting guidelines of each Service represented within the chartered JT. In accordance with JT&E Program Office (JPO) personnel policies and procedures, JTDs will submit reports to the JPO for review and appropriate processing. The JTD is also required to complete a personnel summary report to track military personnel assigned to JTs and related military information. This is due on a quarterly basis during the months of February, May, August, and November. The summary consists of personal data such as name, grade, social security number, and date of last military report. The format is provided by the JPO.

The JPO policy on military reports and rating chains is based on Service directives and policies. These directives and policies all identify the following key points:

- All Service regulations follow the principle of unity of command and dictate that personnel performance be evaluated within a rating chain of supervisor (or reporting senior), supervisor's supervisor (or reviewing officer), and so on up the chain.
- A required military grade and/or position or civilian flag officer equivalent is stated identifying senior rater or reporting senior.
- Individual JTs are joint organizations and as such, should have rating chains including members of other Services, as well as civilians. Therefore, when considering a reporting chain for a member of one Service, the requirements of that Service must be considered.

This policy provides a consistent approach to military reports and rating chains for the entire JT&E program, with consideration of Service form-specific characteristics and differences in Service and OSD regulations. The following sections provide the key requirements of this policy.

#### **E.3.1.1 Army Personnel**

DD,AW will be the rater for Army JTDs. They will be senior rated by the Commander, Army Test and Evaluation Command (ATEC). DD,AW will be the senior rater for all Army DTDs and for other Army personnel for whom the JTD is the rater. DD,AW will be the senior rater for enlisted personnel rated by the JTD.

#### **E.3.1.2 Navy Personnel**

DD,AW will be the reporting senior for Navy JTDs. DD,AW will also be the reporting senior for Navy DTDs. The JTD will write Navy DTD fitness reports and submit them to DD,AW for signature. The JTD will be the reporting senior for all other Navy officers assigned to the JT. Enlisted Navy personnel will utilize either the Navy DTD, or another officer of appropriate level.

#### **E.3.1.3 Marine Corps Personnel**

DD,AW will be the reviewing officer when the JTD is the reporting senior. For other Marine Corps personnel, an officer in their chain of command will be the reporting senior and the JTD will be the reviewer.

#### **E.3.1.4 Air Force Personnel**

DD,AW will be the rater and/or senior rater for Air Force JTDs. For all other Air Force personnel rated by the JTD, DD,AW will be the additional rater, reviewer, rater's rater, or endorser as appropriate to meet the Air Force instructions regarding wing commander or equivalent review or endorsement. DD,AW is the sole approval authority for exceptions to this policy. Exceptions to this policy, which impact the reporting chain of Air Force personnel assigned to a JT with a non-Air Force JTD, require a reporting chain which allows DD,AW to be the rater, additional rater, reviewer, rater's rater, or endorser as appropriate to meet Air Force instructions regarding wing commander or equivalent review or endorsement.

### **E.3.2 Military Performance Report Policy**

The following procedures implement the JPO military performance report policy:

- Each JT will establish a chain of command meeting the above requirements and will brief each military member of the JT on the military report policy and their rating chain.
- Each JT will establish and publish a personnel summary for all military personnel in the JT. This document will be provided to the JPO on a quarterly basis during the months of February, May, August, and November, and be kept up-to-date.
- Each JT will establish internal procedures to insure each Service's regulations and requirements are applied appropriately within the JT.
- Each JT will identify personnel military reporting requirements that are due within 90 days in the monthly progress report.
- Each JT will submit military reports requiring DD,AW action immediately following the "thru" date on the report to ensure an adequate amount of time for processing. Air Force reports are due to the Director, Operational Test and Evaluation (DOT&E) Air Force Advisor no later than the last day of the reporting period. Please plan accordingly.

#### **E.3.2.1 Army Performance Reports**

Senior raters (DD,AW and JTDs) must personally understand the Army Evaluation Reporting System. They must understand the mechanics of the system and proactively manage their senior rater profile. Senior raters should use DA 67-9-2 senior rater profile report as a management tool. Batch processing and the sequencing of reports are two tools to help senior raters maximize the "Above Center of Mass (ACOM)" box while avoiding potential misfires.

JTDs forward officer evaluation reports (OER) and an OER support form (DA Form 67-9-1) or non-commissioned officer evaluation reports (NCOER) requiring DD,AW action, complete with signatures and recommended senior rater comments, to the JPO. The JTD may also include recommendations to DD,AW concerning ratings. The JPO will provide information concerning the total number of officers of the specific rank senior rated by DD,AW. When completed, JPO will forward the report to DD,AW. DD,AW will designate an aide to manage his Army senior rater profile.

Once DD,AW signs an OER or NCOER, he returns it to the JPO who then returns it to the JT and the rated officer. The JT will then forward the report to the officer's military personnel office (MILPO). For evaluation reports that do not have an Army officer in the rating chain, the JT will request the MILPO, via letter, to perform supplemental review of the report.

#### **E.3.2.2 Navy Performance Reports**

DD,AW will establish relationships with sponsoring organizations of Navy JTDs and Navy DTDs to provide administrative assistance and coordination of Fitness Reports. Ranking methods should be determined between DD,AW and the sponsoring organizations and explained to the member during in processing.

JTDs establish relationships with sponsoring organizations of their Navy personnel to provide administrative assistance and coordination of Fitness Reports. Ranking methods

should be determined between the JTD and sponsoring organizations and explained to the member during in processing.

JTs forward recommended Fitness Reports on Navy TDs and DTDs to the JPO for reporting senior or reviewer processing by DD,AW. Once DD,AW has signed a fitness report on Navy JTDs or Navy DTDs, the JPO will return the report to the JT for processing with the sponsoring organization.

### **E.3.2.3 Marine Corps Performance Reports**

When a JT has a Marine Officer assigned as DTD or senior Marine, the JTD is encouraged to establish a rating chain for other Marine Corps personnel assigned to the JT, which will identify the DTD or senior Marine as the reporting senior for those personnel. NOTE: This responsibility requires knowledge and understanding of the process and actions completed.

For evaluation reports that do not have a Marine officer in the rating chain, the sponsoring Marine organization will perform supplemental review of the evaluation report and attach an addendum page to the report. The JTD may prepare a draft addendum page and forward it with the evaluation report.

JTs forward Fitness Reports on Marine officers to the JPO for reporting senior or reviewer processing by DD,AW. Once DD,AW has reviewed and signed off on a Fitness Report on a Marine officer, the JPO will return the report to the JT for processing with the sponsoring organization.

### **E.3.2.4 Air Force Performance Reports**

JTDs forward officer performance reports (OPR) and enlisted performance reports (EPR) requiring DD,AW action and signature to the JPO along with required documents, which include a DD,AW OPR/EPR coordination sheet (provided by JPO), a single uniform retrieval format (SURF), a report of individual person (RIP), and a copy of the previous OPR or EPR.

#### **E.3.2.4.1 Air Force Reporting and Promotion Policies**

The Air Force has established specific procedures for promotions, intern programs, and Service schools. The other Services have a centralized system making the following actions unnecessary.

The Air Force based the officer promotion process on the concept that the current senior commander is in the best position to judge the performance-based potential of an individual officer. The senior commander, or senior rater, is a position the Management Level (major command, field operating agency, direct reporting unit, and other organizations with Air Force personnel) designates to be the highest-level endorser in the ratee's rating chain. Senior raters must be at least a colonel, or the civilian equivalent (GM-15 or higher) serving as a wing commander or equivalent. In the cases of Lieutenant Colonels and above, the senior rater will be the first general officer or equivalent in the rating chain.

- Management Level (ML): The Air Force has established DOT&E as the ML for officer promotions. DOT&E has assigned DD,AW as a senior rater for Air Force officers in the JT&E program.
- For any selection board, the Air Force divides eligible officers into those who are eligible below the promotion zone (BPZ) or eligible in/above the promotion zone (I/APZ). A basically identical two phase process is applied to both groups:
  1. Promotion Recommendation: Prior to any selection board, the senior rater completes a promotion recommendation form (PRF) for each officer meeting the board. The form includes a written recommendation that conveys what makes the officer one of the best qualified for promotion or otherwise supports the overall recommendation. The senior rater draws this recommendation from the officer's entire career. Additionally, the senior rater provides an overall recommendation:
    - Definitely Promote: A "Definitely Promote" recommendation indicates the strength of the ratee's performance and performance-based potential alone warrants promotion. The Air Force allocates a fixed number of "Definitely Promote" recommendations to the senior rater based on a percentage of those eligible. The percentages are different for BPZ and I/APZ. The senior rater may award his "Definitely Promote" allocations to his most deserving officers. In the case where a senior rater believes he has eligible deserving of a "Definitely Promote," and he does not have allocations to award, he may forward those records to the ML to compete for aggregated "Definitely Promote" recommendations.
    - Promote: A "Promote" recommendation says the ratee is qualified for promotion and should compete at the central selection board based on performance, performance-based potential, and broader considerations such as duty history, Professional Military Education (PME), advanced degrees, and so forth. The "Promote" recommendation means the senior rater believes the Air Force should promote the officer. There is no limit to the number of "Promote" recommendations a senior rater is allowed.
    - Do Not Promote This Board: A "Do Not Promote This Board" recommendation says the ratee does not warrant promotion by the central selection board.
  2. Central Selection Board: The Air Force convenes a central selection board to review and evaluate the records of all the eligible officers. The Air Force provides the board a selection folder on each officer that includes a duty qualifications history brief, the PRF, the officer's evaluations for his entire career, and any letters the officer may choose to write the board. The board ranks all those eligible and selects the best qualified based on the allowed promotions for that board.
    - Because they are limited in number, "Definitely Promote" recommendations are a strong signal to the board; however, the board members have a sworn duty to independently review the records of all eligible officers to select those who are the best qualified. A large percentage of officers with "Definitely Promote" recommendations are selected for promotion. For BPZ, since the number of DP



recommendations is high relative to the number of promotions available, the board only considers any recommendation as a nomination for a BPZ promotion.

- Because the “Definitely Promote” allocation percentage is set below the promotion percentage, the central selection board may also select for promotion a reasonable number of officers who receive a “Promote” recommendation.
- The “Do Not Promote This Board” recommendation also sends a clear signal to the board; however, the final decision to promote, or not promote, rests with the board, and all recommendations receive careful consideration.

#### **E.3.2.4.2 Air Force Officer Promotion Policies**

DD,AW will be the rater and/or senior rater for Air Force JTDs. For all other Air Force personnel rated by the JTD, DD,AW will be the additional rater, reviewer, rater’s rater, or endorser as appropriate to meet the Air Force instructions regarding wing commander or equivalent review or endorsement. DD,AW is the sole approval authority for exceptions to this policy.

For all Air Force Officer Promotion Boards:

- Washington Headquarters Services (WHS) Director, Administration and Management of Military Personnel (MILPERS) system sends an e-mail announcing the board dates, eligibility list, and submission information to the JPO.
- The JPO distributes the information to the JTDs who have eligible officers. The JPO assigns suspense dates to the JTDs for Management Eligibility List (MEL) changes and PRF submissions.
- The JTD prepares a draft PRF and submit it to DD,AW through the JPO approximately one month prior to the due date to WHS MILPERS. The JTD may also provide additional comments or recommendations relative to the performance-based potential of the officer.
- Once received, JPO forwards the PRF to DD,AW for processing as senior rater. If DD,AW has “Definitely Promote” allocations, he will select the most qualified officer(s) and award the allocations. He will also identify officers he wishes to compete for aggregate “Definitely Promote” recommendations at the ML.
- Once the ML finalizes the PRF, they return a copy to the JT through the JPO. Each PRF will have a sealed note from DD,AW stating that the officer should review all information for accuracy that DD,AW is available to discuss any concerns and the officer has the right to submit a letter to the President of the Central Selection Board calling attention to any matter of record that may be important for board consideration.

#### **E.3.2.4.3 Air Force Selection Boards**

DOT&E does not participate in any manner in Army, Marine Corps, or Navy selection boards. The Air Force uses PRFs to determine those selected from the list of eligible individuals. Submit these forms via the JPO.

Air Force boards consist of promotions boards, school boards, and intern program boards. Air Force MILPERS sends a message to the JPO announcing a board with a MEL of all JT&E eligible individuals. MILPERS sets the dates for submission of the finalized, signed MEL and signed PRFs. Based on the Service due dates, the JPO will set internal due dates for the JTD to submit the documents to the JPO to ensure sufficient time for review by the PM and approval by DD,AW and DOT&E prior to being sent to MILPERS.

#### **E.3.2.4.4 Air Force Intern Programs and Service Schools**

The Air Force has established other programs requiring Management Level Oversight and senior rater involvement.

- The Air Force Intern Program is a board selected leadership program for captains. This fast-paced 17-22 month program develops tomorrow's leaders. It combines hands-on experience as an intern in the Joint Staff, OSD, the Air Staff, or the Secretariat with graduate courses in leadership and management at George Washington University. A central board selects fifty captains per year for the program. If necessary, an Air Force officer assigned to a JT&E project conducts a review of all the nominations and recommends nominations to the central board through the DOT&E ML.
- The Air Force Intermediate Service School and Senior Service School selection is another ML Oversight Program. Upon promotion to Major or Lieutenant Colonel respectively, a subset of the promotion list are selected as candidates for these schools and will usually be selected for attendance within the following three and four years respectively. An ML may also nominate a small number of non-candidates to attend these schools. Each year, a central board identifies the attendees for the available school positions.
  - The Air Force usually allows DOT&E to nominate at least one non-candidate annually for each of these schools.
  - If necessary, an Air Force officer assigned to JT&E conducts a review of all the nominations and recommends nominations to the central board through the DOT&E ML.

For all Air Force Management Level Oversight Programs:

- WHS MILPERS sends an e-mail announcing the board dates, eligibility list, and submission information to the JPO.
- The JPO distributes the information to the JTDs who have eligible officers. The JPO gives a suspense date for Air Force Form 3849 submission to the JTDs.
- JTDs and/or Air Force DTDs will counsel all eligible officers on the programs and their opportunity to participate in the program.
- For the Air Force Intern Program, a volunteer completes an Air Force Form 3849; the JTD drafts Part IV of the form, and forwards the form to the JPO. JTDs will provide a negative response to the JPO if they have no volunteers.
- For Intermediate Service School and Senior Service School, candidates and non-candidate volunteers complete an Air Force Form 3849; the JTD drafts Part IV of



the form, and forwards the form to the JPO. JTDs will provide a negative response to the JPO if they have no candidates or non-candidate volunteers.

- Once the JPO receives all the Air Force Form 3849s or negative responses, JPO forwards them to DD,AW for processing as senior rater. JPO then forwards the forms to DOT&E.

When the JPO receives an OPR or EPR, when applicable, it is forwarded to the DOT&E Air Force Advisor and/or Acquisition Examiner for review and signature and then to DD,AW for signature. Once DD,AW has signed the report, the JPO will send OPRs and EPRs back to the JT, and the JT will then forward the report to the servicing Military Personnel Flight.

## **E.4 Award Procedures for Joint Tests**

Once a JT is chartered, the JTD must coordinate military and civilian awards with the JPO.

### **E.4.1 Joint Awards**

DOD authorizes military personnel assigned to a JT, and certain military personnel supporting the JPO, to receive joint awards under DOD Manual 1348.33, Manual of Military Decorations and Awards, September 1996. OSD has developed the WHS Joint Awards Guide, January 2000, to aid organizations with processing these awards. See this guide in appendix E-1.

MILPERS is the approval authority for all joint awards in his chain of command. In March 2007, the Director, Operational Test and Evaluation and DD,AW delegated approval authority for the Joint Service Achievement Medal to Joint Test Directors (appendix E-2). Joint awards include the Defense Distinguished Service Medal (DDSM) (extremely rare), Defense Superior Service Medal (DSSM), the Defense Meritorious Service Medal (DMSM), the Joint Service Commendation Medal (JSCM), and the Joint Service Achievement Medal (JSAM). When writing a joint award, the JTD should refer to the JT&E Awards and Decorations Guide (appendix E-1) which is the JPO-modified version of the January 2000 Washington Headquarters Service guide. All joint awards, regardless of the nominee's original Service, are handled in the same manner by OSD except for the JSAM. The JSAM recommendation is written by the JTD who has authority to award it at the local level. A final copy of the JSAM package is required to be sent to the JPO for filing. For all awards, excluding the JSAM, JTs must submit a memorandum signed by the JTD, a narrative and a citation to the JPO no later than 90 days prior to presentation of the award. DD,AW will sign the memorandum for JTD award nominations.

For awards requiring board decisions, that is, DDSM (O6 and E9, Directors, Deputy Directors, Division Chief Positions), DMSM (O4 and/or O5 and E7 and/or E8, leadership positions and outstanding work), JSCM (O3 and below and/or E6 and below):

- JTDs prepare submissions (recommendations) using the Joint Awards Guide. An electronic draft version is sent to the JPO. Once approved, a hard copy with the JTDs signature on the recommendation memorandum should be sent by the JT to the JPO.

- The JPO PM reviews the submissions. Once approved, the JPO forwards it to DD,AW for initialing and DOT&E Administration for signature, who then forwards to the OSD awards board, which meets each Monday.
- Approved awards are returned to DOT&E Administration for distribution to the recipient through the JPO. The member is responsible for ensuring that the joint award is posted in his/her official military personnel record.
- JTs will submit award recommendations to the JPO 90 days prior to date of anticipated presentation. This time is necessary to allow for processing award recommendations.
- JTs will identify anticipated joint award processing requirements within 180 days in the Monthly Report.

For JSAMs:

- JTDs have been delegated the authority to award JSAMs so no board is required.
- Given for all ranks, excluding O-6, for a specific achievement (for example, performance during a test event.)
- The JT will develop the citation. JTs do not necessarily need to do a separate narrative for award of the JSAM. This requirement would be by discretion of the JTD.
- The JT will prepare the official orders.
- The JT will need to keep a log of JSAMs awarded on file in order to ensure the order numbers are not duplicated. These order numbers are calendar year numbers, and do not have any bearing on the month of award, example, 98-001, 98-002, 99-001, 99-002, and so forth (Appendix E-1).
- The JT will prepare the DD Form 2414. They will need to order DD Form 2414 from their publications and forms office in order to print out the JSAM award for Joint Test Director signature. Defense Logistics Agency (DLA) also has forms, telephone 703-767-1272. Medals are obtained from Military Clothing Sales or Vanguard, which are more expensive.
- The JT will provide an information copy of the completed package to the JPO as described in Appendix E-1.
- The JT is responsible to ensure that copies of the award are sent to the appropriate personnel records office. Although not required, we recommend attaching a copy of the letter of Delegation of Authority to Approve Defense Decorations (appendix E-2) to the citation and orders for forwarding to the appropriate personnel records organization. This should help ensure that the awards are updated as a part of the member's records.

#### **E.4.2 Civilian Awards**

Civilian personnel assigned to a JT are authorized to receive civilian awards under OSD Administrative Instruction No. 29. This administrative instruction aids organizations with processing civilian awards. The Director, Operational Test and Evaluation (DOT&E) and the Secretary of Defense (SecDef) are the approval authorities on all civilian awards. Some awards also require the Incentive Awards Board (IAB) for approval.

Nominate the following honorary awards through DOT&E:

For career employees:

- DOD Distinguished Civilian Service Award (requires approval by the SecDef and review by the IAB)

- SecDef Meritorious Civilian Service Award (requires approval by the SecDef and review by the IAB)
- OSD Exceptional Civilian Service Award (requires approval by an OSD component head)
- OSD Civilian Career Service Award (only awarded to those employees for whom WHS provides personnel services). Those supporting the Services are not eligible to receive this award.
- OSD Award for Excellence (requires approval by an OSD component head)
- Group Achievement Award (requires approval by an OSD component head)

For non-career employees:

- DOD Distinguished Public Service Award (requires approval by the SecDef)
- SecDef Outstanding Public Service Award (requires a memorandum to the SecDef)
- OSD Exceptional Public Service Award (requires approval by an OSD component head)
- OSD Award for Outstanding Achievement (requires approval by an OSD component head)
- Group Achievement Certificate (requires approval from an OSD component head)

Incentive awards:

- Special Act or Service Award (requires review and approval by the IAB)
- Superior Accomplishment Award (requires review and approval by the IAB)
- Time-Off Award (requires approval from an OSD component head)
- Supervisor's Cash Award (may be approved by a first or second level supervisor, IAB has final review and approval authority)

The following procedures must be followed when submitting an award nomination:

1. JTDs prepare submissions (memo, narrative, and citation [see appendix E-3]) using OSD Administrative Instruction No. 29 and forward these electronically to the JPO.
2. The JPO reviews the submissions, and then prepares a staff package for DD,AW to initial and DOT&E or SecDef to sign.
3. Approved awards are forwarded to WHS for processing. The individual is responsible for ensuring that they keep a copy of their OSD award.
4. For awards that receive approval from an OSD component head, JTs will submit award recommendations to the JPO 30 days prior to the date of anticipated presentation. For awards requiring Incentive Awards Board review, JTs will allow 30 days from the time the board meets, which is usually the second Wednesday of each month (60 days to JPO prior to anticipated presentation). For awards requiring only SecDef approval, JTs will allow 60 days prior to date of anticipated presentation.

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## APPENDIX E-1 JOINT AWARDS GUIDE

January 2000



### WASHINGTON HEADQUARTERS SERVICES

Washington Headquarters Services

PSD Home SES/APEX HRSC Personnel Security Military Personnel VCMO LMER  
Workforce Development

Consolidated Adjudication WHS CFC 2000 EEO Executive and Political Personnel  
Personnel Systems

**Last Update December 23, 2005**

### JOINT AWARDS GUIDE

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#### INDIVIDUAL JOINT AWARDS

- |                                 |                               |                      |
|---------------------------------|-------------------------------|----------------------|
| • Preparation of Recommendation | • Approval Authority          | • Order Distribution |
| • Board Procedures              | • Sample Award Recommendation | • Sample Narrative   |
| • Sample Citation               |                               |                      |

---

#### JOINT MERITORIOUS UNIT AWARD (JMUA)

- Preparation of Recommendation
- Sample JMUA Recommendation

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*(Information and samples modified for use by Joint Test and Evaluation [JT&E])*

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## Preparation of Award Recommendations

Award recommendations should be submitted 90 days prior to the desired presentation date and include the elements listed below. The JT&E Program Office and Tech Editor will proof read the narrative, citation, and memorandum. A staffing package is created and sent forward to the JT&E Program Manager, DD,AW, and Director, Operational Test and Evaluation (DOT&E) Director for Administration and Management, who will then forward it to the Office of the Secretary of Defense (OSD) Awards Branch for boarding. The boards take place every Monday. When the final award is sent back to the JT&E Program Office from Military Personnel (MILPERS), the JT&E Program Office will FedEx the official award to the test.

*(1) Narrative - the Defense Distinguished Service Medal (DDSM) (extremely rare) and the Defense Superior Service Medal (DSSM) shall not exceed two single-spaced pages. The Defense Meritorious Service Medal (DMSM), the Joint Service Commendation Medal (JSCM), and the Joint Service Achievement Medal (JSAM) (may be awarded by the test director) shall not exceed one single-spaced page. Put in paragraph form and use 12 pitch, Times New Roman font. The narrative should be specific and factual, giving concrete examples of exactly what the Service member did, how it was done, what benefits or results were realized, and why or how such benefits or results significantly exceeded superior performance of duty. (See page 7 for a sample)*

All decorations will be awarded only to members of the Armed Forces of the United States. Service members on temporary duty (TDY) may be awarded Defense decorations. The achievement must be of a truly outstanding nature.

The DSSM shall be awarded to those who rendered superior meritorious service in a position of significant responsibility. Only under the most unusual circumstances will a DSSM be awarded as an impact award for outstanding TDY achievement. The DMSM shall be awarded to those who distinguished themselves by non-combat meritorious achievement or service. Only under the most unusual circumstances will a DMSM be awarded as an impact award for outstanding TDY achievement. The JSCM shall be awarded only to those who distinguished themselves by meritorious achievement or service. The JSAM shall be awarded to individuals below the grade of O-6 who have distinguished themselves by outstanding performance of duty and meritorious achievement.

*(2) Citation - the citation shall not exceed 16 single-spaced typed lines for the body. Citations should be landscaped and justify the left and right sides of the body. Use 14-pitch, Times New Roman font and set the left and right margins at 1.1 inch. (See page 10 for a sample)*

(a) Defense Agencies close with "Department of Defense". (This applies to JT&E)

(b) The Immediate Office of the Secretary of Defense, Offices of the Under Secretaries of Defense, and Offices of the Assistant Secretaries of Defense, close with "Office of the Secretary of Defense".



(c) When using duty title, omit "the" or "an"; for example, use "service as Administrative Assistant ..." vice as "the".

(d) For compound grade titles, such as first lieutenant, staff sergeant, and so on, spell out the complete grade title in the opening and ending sentences, and then use the short title in the balance of the citation (this applies to the narrative as well). Example: lieutenant, sergeant, and so forth.

(e) Omit the parentheses when using the organization; for example, Under Secretary of Defense (Personnel and Readiness), use Under Secretary of Defense for Personnel and Readiness.

(f) When speaking of the Combatant Commanders collectively, it is Commanders in Chief.

(g) Dollar amounts--\$200 million; numbers one through ten should be written out; 11 and above are numerical.

(3) Memorandum - address the memorandum to Chief, Military Personnel Division, Washington Headquarters Services. The package must go through the organizational chain of command before reaching the Awards Section. (See page 4 for format, Page 5 for sample)

(4) Copies - Send the original signed memorandum, narrative, and citation via FedEx to the JT&E Program Office. Send the unsigned memorandum, narrative, and citation, via e-mail to the JT&E Program Office.

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#### ***Approval Authority***

DSSM, DMSM, JSCM, and JSAM for service members assigned to multilateral and bilateral organizations; and other offices within the Executive Branch, Executive Agencies and Departments, or independent establishments and Government corporations, is the Director for Administration and Management. The approval authority for the DDSM is the Deputy Secretary of Defense.

Approval authority for the JSAM for Service members assigned to OSD, the DOD Field Activities, or the joint DOD activities for which a Principal Staff Assistant has been designated "Executive Agent for the Secretary of Defense," is delegated to the OSD Principal Staff Assistants. See the JT&E Personnel Policies and Procedures for more information.

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#### ***Orders Distribution***

Two (2) copies of the orders are given to the recipient of the award. Recipients are responsible for ensuring that a copy of the award is placed in their personnel records.

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#### ***Board Procedures***

Award recommendations will be boarded with three senior officers assigned to OSD. Board books will be distributed to the board members every Monday for review.

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## Format for Award Memorandum

Your Letterhead

(Use only civilian dates) March 30, 2004

MEMORANDUM FOR CHIEF, MILITARY PERSONNEL DIVISION PERSONNEL AND  
SECURITY DIRECTORATE WASHINGTON HEADQUARTERS  
SERVICE

THROUGH: DIRECTOR, OPERATIONAL TEST AND EVALUATION

SUBJECT: Recommendation for Award of the (as applicable)

Under the provisions of DOD 1348.33-M, the following Service member is recommended for award of the (as applicable):

- a. Grade, name, Service, and social security number.
- b. Organization of assignment. (This will be your test name, city, and state.)
- c. Title and duty assignment at the time of act or service. (Example: Air Force Deputy Test Director.)
- d. Inclusive dates for which recommended. (Do not use the day in your dates on this line.)
- e. Indicate the reason for the submission (Example: Service member is to be reassigned permanent change of station on \_\_\_\_\_, separated from active duty on \_\_\_\_\_, or retired from active duty on \_\_\_\_\_.) or if award recommended is for meritorious achievement; indicate "Impact Award." (Use only civilian dates.)
- f. Requested date of presentation and provide the telephone number and a point of contact.
- g. Previous Defense awards and inclusive dates. (For JT&E purposes, it is prior joint awards only. If there are any listed here, a copy of the citation must be included with the award submission if the previous award is within the inclusive dates of the new award. Use only civilian dates.)
- h. No other award for this Service member for this action is pending, and no previous award has been made for the act or service described herein. (It is the responsibility of the recommending official to ensure compliance with this policy.)

Attached is a narrative description of (achievement performed or service rendered.)

(Signature of Recommending Official)

Normally this is the test director. If it is a reconsideration of an award, then this is DD,AW's signature.

Attachments:

1. Narrative
2. Citation
3. Supporting Documentation (if appropriate, from item "g" above)

## Sample Award Memorandum

Your Letterhead

July 30, 2004

MEMORANDUM FOR CHIEF, MILITARY PERSONNEL DIVISION PERSONNEL AND  
SECURITY DIRECTORATE WASHINGTON HEADQUARTERS  
SERVICE

THROUGH: DIRECTOR, OPERATIONAL TEST AND EVALUATION

SUBJECT: Recommendation for Award of the Defense Meritorious Service Medal

Under the provisions of DOD 1348.33-M, the following Service member is recommended for award of the Defense Meritorious Service Medal:

- a. Lieutenant Colonel Luke Skywalker, United States Air Force, xxx-xx-xxxx.
- b. Joint Environmental Smoke Detection (JESD) Joint Test and Evaluation (JT&E), Whosit AFB, New Jersey.
- c. Deputy Head Honcho.
- d. July 2000 to December 2002.
- e. Service member is being reassigned, permanent change of station on January 20, 2003.
- f. Award presentation date: January 15, 2004. POC for this award is Colonel Kanobe, (703) 681-4024.
- g. Previous Defense awards: Joint Service Achievement Medal (JSAM), January 3 - 29, 2000.
- h. No other award for this Service member for this action is pending, and no previous award has been made for the act or service described herein.

Attached is a narrative description of service rendered.

OBEE W. KANOBE  
Colonel, USAF  
Joint Test Director

Attachments:

1. Narrative
2. Citation
3. Copy of previous award – JSAM (Note: The copy of the JSAM is not needed with this award since the date of the JSAM is for January 2000, which is not within the inclusive dates of the new award which is July 2000 to December 2002. The JSAM only needs to be mentioned in item “g” above.)

## Sample Narrative

Sergeant First Class John E. Doe, United States Army, distinguished himself by exceptionally meritorious service as Army Personnel Services Representative, and as Joint Military Personnel Technician, Military Personnel Division, Personnel and Security Directorate, Washington Headquarters, from July 1988 to August 1993. With a broad background of Army personnel experience, Sergeant Doe had an immediate positive impact on the personnel support provided to the Army personnel assigned to the staff of the Office of the Secretary of Defense, raising it to a previously unachieved level of efficiency.

As Sergeant Doe and his subordinate performed the duties of at least five personnel, he took upon himself the duties of First Sergeant, effectively performing duties normally far above those for someone of his grade. Not satisfied to be an outstanding noncommissioned officer and an expert in Army personnel matters, Sergeant Doe proceeded to apply himself to learning the personnel policies and procedures of the other military services, the joint manning policies, and the job functions of every other section in the Military Personnel Division. This naturally led to his serving in innumerable valuable capacities, to include: providing primary training in office procedures and policies, and OSD peculiarities, and acting as mentor for all newly assigned Military Personnel staff, which has been significant; functioning as office NCOIC and Senior Enlisted Advisor as a permanent additional duty; performing the duties of the Deputy Chief for the Military Personnel Division in the absence of the Chief or Deputy Chief; and handled all hot projects, sensitive issues, and joint personnel taskings for the Chief of Military Personnel.

This last area deserves special note because it included such items as: being sent Temporary Duty to subordinate organizations outside the Military District of Washington to represent the Personnel and Security Directorate, and assess the quality of personnel support being provided to and by them; establishing Standard Operating Procedures for the office overall, requiring his high level of joint expertise and knowledge of every job with the division, as well as their interrelationships; providing overall manpower analysis of Military Assistant Positions for the Director of Administration and the Deputy Secretary of Defense requiring the ability to "see the big picture," understand the organization overall, and still pay strict attention to detail; serving as single point of contact other than the Division Chief for coordination SERB actions and assisting officers after notification had been made; serving as Action Officer to develop plans, which were coordinated with the Services to provide for evaluation of all officers assigned to the Secretary of Defense's Base Transition Office. The distinctive accomplishments of Sergeant First Class Doe reflect great credit upon himself, the United States Army, and the Department of Defense.

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(This is a MILPERS Sample. Please format like the JT&E sample on page 10.)

### Sample Citation

*CITATION TO ACCOMPANY THE AWARD OF  
THE DEFENSE SUPERIOR SERVICE MEDAL  
TO*

JOHN E. DOE

Colonel John E. Doe, United States Air Force, distinguished himself by exceptionally superior service as Special Assistant to the President, The White House, from January 1994 to December 1996. The outstanding professional skill, leadership, and ceaseless efforts of Colonel Doe resulted in major contributions to the effectiveness and success of various nationally critical programs. Applying extensive knowledge and substantial experience, he aggressively pursued and resolved countless political-military issues and led all efforts to reorganize and focus the staff for greater efficiency. He personally directed several key action groups that made sweeping changes, significantly affecting the Command's mission and resulting in increased staff efficiencies and resource savings. The distinctive accomplishments of Colonel Doe reflect great credit upon himself, the United States Air Force, and the Department of Defense.

#### **Opening Statement – Narrative and Citation**

- Opening statement is boilerplate
- DDSM use exceptionally distinguished service
- DSSM use exceptionally superior service
- DMSM/JSCM/JSAM use exceptionally meritorious service (use exceptionally meritorious achievement for impact awards)

#### **Closing Statement – Narrative and Citation**

- Closing statement is boilerplate

-PCS/IMPACT AWARD: The distinctive accomplishments of Colonel Doe reflect great credit upon himself, the United States Air Force, and the Department of Defense. Do not use the word "great" in the closing sentence for the JSAM.

-RETIREMENT AWARD: The distinctive accomplishments of Colonel Doe culminate a (long and) distinguished career in the service of his country and reflect great credit upon himself, the United States Air Force, and the Department of Defense. Use "long and" only if the retirement is occurring after serving more than 20 years.

-SEPARATION AWARD: The distinctive accomplishments of Major Doe while serving his country reflect great credit upon himself, the United States Air Force, and the Department of Defense.

-POSTHUMOUS AWARD: The distinctive accomplishments of Colonel Doe in the dedication of his service to his country reflect great credit upon himself, the United States Air Force, and the Department of Defense.

-WHS will no longer prepare citations for activities with the exception of the Immediate Offices of the Secretary and Deputy Secretary of Defense, and the Offices of the Principal Staff Assistants. Activities may prepare citations on bond paper, command letterhead, parchment paper or other suitable paper stock.

## **Definitions**

-Meritorious Service: Individual performance must exceed that expected by virtue of grade and experience, based on accomplishments during an entire tour of duty. Awards given for service must cover the period of the controlled duty tour, plus any extensions, and are normally awarded for a period of service greater than 12 months.

-Outstanding Achievement: An outstanding achievement decoration, also known as an “impact award,” is rare, and is intended to recognize a single specific act or accomplishment, separate and distinct from regularly assigned duties, such as a special project. It is not intended to provide a means to authorize additional decorations or a decoration when the conditions for a completed period of service have not been fulfilled nor is it intended as an automatic award for members assigned to joint activities on TDY orders. An outstanding achievement covers a short period of time with definite beginning and end dates. A recommendation for an outstanding achievement award should be submitted only when the achievement is of such magnitude that it cannot be recognized in any other way that by award of a decoration, and to delay such recognition until completion of the individual’s period of service would diminish the significance of the accomplishment.

-Service: For award purposes, the word “service” is defined as “a period of time greater than 12 months and encompassing an individual’s entire joint assignment.”

*(This is the JT&E Sample)*

CITATION TO ACCOMPANY THE AWARD OF  
THE DEFENSE MERITORIOUS SERVICE MEDAL

TO

MICHAEL C. JONES

Master Sergeant Michael C. Jones, United States Air Force, distinguished himself by exceptionally meritorious service as the Noncommissioned Officer-In-Charge, Joint Suppression of Enemy Air Defenses (JSEAD) Joint Test and Evaluation (JT&E), Nellis Air Force Base, Nevada, from February 1997 to October 2000. During this period, the outstanding professional skill, leadership, and ceaseless efforts of Sergeant Jones resulted in major contributions to the effectiveness and success of several nationally critical programs. Displaying sound leadership, acute organizational skills, and managerial acumen, he played a key role in establishing JSEAD's organizational infrastructure and its day-to-day operations. A pivotal member of the Office of the Secretary of Defense Management team, Sergeant Jones' initiatives for improving organizational effectiveness and ensuring stellar administrative and security support had a beneficial impact on JSEAD, other JT&Es, and the acquisition community. The distinctive accomplishments of Master Sergeant Jones reflect great credit upon himself, the United States Air Force, and the Department of Defense.

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### **Preparation of JMUA Recommendations**

1. A recommendation for the Joint Meritorious Unit Award will consist of the following elements:
  - (a) Narrative - The narrative justification must contain specific and factual data about what the activity accomplished, how it was done, what the benefits or results were, and why or how the achievement or service significantly exceeded normal unit duty performance. The narrative justification shall not exceed three single-spaced pages.
  - (b) Citation - the citation shall be submitted on bond paper, not to exceed 20 typed lines.
  - (c) Personnel roster - a roster of all eligible personnel must be submitted with each JMUA recommendation to be retained by Military Personnel Division.
  - (d) Eligible subordinate unit roster
  - (e) Copies - the original plus three copies
  - (f) Endorsing official - the award recommendations must be endorsed by commanders at all levels.
2. Approval Authority - authority to award the JMUA is delegated to the Director, Operational Test and Evaluation.
3. Orders Distributions – orders are distributed to the originator of the award. The responsibility to notify the individuals eligible to receive the award remains with the originator.

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## **Sample JMUA Recommendation**

### *DOT&E Letterhead*

(Use only civilian dates) March 30, 2004

MEMORANDUM FOR CHIEF, MILITARY PERSONNEL DIVISION PERSONNEL AND  
SECURITY DIRECTORATE WASHINGTON HEADQUARTERS  
SERVICE

SUBJECT: Recommendation for Award of the Joint Meritorious Unit Award

Under the provisions of DOD 1348.33-M, the following DOD activity is recommended for award of the Joint Meritorious Unit Award:

- a. Unit, activity, or organization.
- b. Location, such as installation, city, state, and country.
- c. Inclusive dates for which recommended.
- d. Previous JMUAs awarded to this DOD activity and inclusive dates.

No other unit award is pending for this DOD activity regarding this action, and no unit award has been made previously for achievement or service described herein.

Dr. Charles E. McQueary  
Director

Attachments:

1. Narrative
2. Citation
3. Supporting Documentation (if required)
4. Service Member Listing – Military (Government civilians do not receive credit. You may list them if you want them to be eligible to wear a lapel pin.

## **Appeals**

- Board may downgrade or disapprove the submission. A letter will be sent back officially stating the downgrade or disapproval.
- Memo signed by DD,AW will be resubmitted with the line SUBJECT: Reconsideration of Award for xxx. Provide no more than two pages of additional justification. This must not be repetitive of the original narrative. The original package plus the downgrade or disapproval letter must be included. Appeals are not reviewed by the same board that downgraded or disapproved them.
- Appeals must be made within one year from the time the downgrade or disapproval was given.



CITATION  
TO ACCOMPANY THE AWARD OF  
THE JOINT SERVICE ACHIEVEMENT MEDAL  
TO  
JOHN J. DOE

Sergeant First Class John J. Doe, United States Army, distinguished himself by exceptionally meritorious achievement while serving as Chief, Networking and Engineering Team, Joint Advanced Distributed Simulation, Joint Test Force, Albuquerque, New Mexico from January to February 1998. During this period, Sergeant Doe demonstrated superb leadership resulting in the outstanding performance of the organization. Sergeant Doe's team accomplished the installation of network nodes at four remote locations. This installation included identifying test team requirements, procuring needed equipment, coordination with outside agencies, equipment installation, testing, and troubleshooting network circuits. In addition, a comprehensive network baseline and characterization were completed on all new circuits. His team overcame numerous problems to ensure all networks were up and ready for testing, including lease problems with circuits, hardware problems, and exercise schedules. The dedication to mission accomplishment resulted in an unparalleled period of performance. Many hours of overtime were involved to ensure all elements of the network installations were accomplished. Sergeant Doe's untiring efforts, leadership skills, and ability to motivate others culminated in an on-schedule and under-budget installation. Above all, his awareness of test schedules and priorities, as well as his ceaseless efforts, ensured no disruption to the Joint Test Force mission. The distinctive accomplishments of Sergeant Doe reflect credit upon himself, the United States Army, and the Department of Defense.

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**DEPARTMENT OF DEFENSE  
OFFICE OF THE SECRETARY OF DEFENSE  
WASHINGTON, DC**

Operational Test and Evaluation

April 1, 1998

PERMANENT ORDER 98-001

By direction of the Secretary of Defense, with approval of the Director, *Joint Advanced Distributed Simulation* Joint Test Force, the following individual is awarded the Joint Service Achievement Medal for outstanding achievement during the period indicated. This award is effective upon termination of the period cited. Authority: DOD 1348.33-M, September 1996.

<u>NAME</u>	<u>RANK</u>	<u>SERVICE</u>	<u>SSN</u>	<u>INCLUSIVE DATES</u>	<u>PAS/UNIT CODE:</u>
<i>DOE, JOHN J.</i>	<i>SFC</i>	<i>USA</i>	<i>123-45-6789</i>	<i>5 January - 20 February 1998</i>	<i>KV3VFNP9</i>

*MARK E. SMITH, Colonel, USAF*  
Joint Test Director

**DISTRIBUTION:**

4 - Individual  
1 - Military Record  
1 - JADS JTF  
1 - JT&E Program Office

*Please note that all italicized information indicates the information that will change from this example for your new permanent order.*

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DECORATIONS AWARDED BY THE DIRECTOR, *JOINT ADVANCED DISTRIBUTED SIMULATION*  
JOINT TEST FORCE  
(JOINT SERVICE ACHIEVEMENT MEDALS)

ORDER NUMBER    DATE OF ORDER    NAME    SSN    RANK    SERVICE    INCLUSIVE DATES

99-001	4 FEB 99	DOE, JOHN J.	123-45-6789	MSGT	USAF	20 DEC 98 - 15 JAN 99
99-002	15 MAY 99	DAYS, JESSIE L.	987-65-4321	SFC	USA	1 - 20 APR 99

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## **APPENDIX E-2 DELEGATION OF AUTHORITY MEMORANDUMS**

This appendix contains two memorandums delegating authority to issue the Joint Service Achievement Medal to Joint Test Directors (JTDs).

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OPERATIONAL TEST  
AND EVALUATION

OFFICE OF THE SECRETARY OF DEFENSE  
1700 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1700

MAY 11 2007

MEMORANDUM FOR JOINT TEST DIRECTORS

SUBJECT: Delegation of Authority to Approve Defense Decorations

In accordance with DoD Manual 1348.33-M, September 1996, paragraphs C3.4.5.3.1.6. and C3.4.5.3.2., Joint Test and Evaluation Program Test Directors assigned to the Director, Operational Test and Evaluation are hereby delegated authority to award the Joint Service Achievement Medal (JSAM). As part of this authority you are required to abide by all provisions outlined in the above manual.

*for* *Dr. Charles E. McQueary*  
Dr. Charles E. McQueary  
Director



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OFFICE OF THE SECRETARY OF DEFENSE  
1700 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1700

MAY 11 2007

MEMORANDUM FOR JOINT TEST DIRECTORS

SUBJECT: Delegation of Authority to Approve Defense Awards

The attached memorandum gives Joint Test and Evaluation Program Test Directors the authority to award the Joint Service Achievement Medal (JSAM).

This is a tremendous opportunity to recognize the hard work of our dedicated staffs. Request you provide a copy of the completed award packages to this office.

M. D. Crisp  
Deputy Director  
Air Warfare

Attachments:  
DOT&E Memorandum  
DoD Manual 1348.33-M



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## **APPENDIX E-3**

This appendix provides examples for submitting civilian awards.

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## DOT&E Letterhead

(Use only civilian date) October 19, 2006

### MEMORANDUM FOR ASSISTANT DIRECTOR FOR LABOR AND MANAGEMENT EMPLOYEE RELATIONS, DIRECTORATE OF PERSONNEL AND SECURITY, WHS

SUBJECT: Nomination for the Office of the Secretary of Defense Medal for Exceptional  
Civilian Service

In accordance with OSD Administrative Instruction 29, I have approved the award of the Office  
of the Secretary of Defense Medal for Exceptional Civilian Service to \_\_\_\_\_.  
The basis for this award and the citation are provided in the attachments.

Name and SSN: Mr. Obee W. Kanobe, 1213-45-6789

Title and grade: Program Analyst, Human Resources Directorate, GS-13

Organization And Location: Defense Advanced Research Projects Agency (HRD),  
3701 North Fairfax Dr., Arlington, VA 22203-1714

Length of Time With Organization: May 1991 to present, 15 years and 8 months

Significant Prior Awards Received: Special Act Awards, January 1996 and May 1998 Performance  
awards for each year 1993 through 2004.

Basis for Award: See attached narrative.

No other award for this individual is pending and no other previous award has been made for the  
service described herein.

Dr. Charles E. McQueary  
Director

Attachments:  
a. Narrative  
b. Citation

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**NARRATIVE FOR  
OFFICE OF THE SECRETARY OF DEFENSE  
MEDAL FOR EXCEPTIONAL CIVILIAN SERVICE  
FOR  
OBEE W. KANOBE**

Mr. Obee Kanobe has distinguished himself by his sustained, superior and exceptional devotion to duty and significant contributions to the Department of Defense, while serving as Program Analyst, Human Resources Directorate, and Defense Advanced Research Projects Agency (DARPA), from May 1991 through January 2007. During this period, Mr. Kanobe provided outstanding support to the personnel of the agency.

Upon joining DARPA, he began his service as the secretary and personal assistant to the Deputy Director for Systems and Technology. In this capacity, he quickly became an indispensable aide through his abilities in managing all facets of the Deputy Director's administrative affairs.

In 1994, Mr. Kanobe moved to the personnel section where he has served since in personnel administration. Over the intervening period, he has excelled in the personnel area as evidenced in the assignment of increased scope and responsibilities until achieving his present position in the Human Resources Directorate.

In the personnel section, he began by establishing, maintaining, and improving the personnel and manpower database, an extremely important management tool. As the scope and level of personnel actions evolved and increased at DARPA, so did Mr. Kanobe's scope and level of responsibilities. He gained a superior level of technical knowledge of the policies and procedures of the Federal personnel system. He mastered the details of the recruiting and staffing process and used them to efficiently and properly bring the best scientists and engineers available into the service of the agency. Based upon his extensive and detailed knowledge of the Federal personnel system, he was also responsible for ensuring that the agency's personnel and manpower procedures were consistent with applicable Department of Defense policies and directives.

Because of Mr. Kanobe's in-depth knowledge and abilities, he became the Agency's primary liaison to Washington Headquarters Services (WHS). In this regard, he ensured that good communication between DARPA and WHS was established, maintained, and remained open. Additionally, he became the principal liaison to the Military Personnel Office at WHS and became the DARPA focal point for all administrative actions involving the military personnel assigned to the agency.

The sustained superior service that Mr. Kanobe has performed for the agency during the past 15 years culminates a career of service in the federal government spanning over 38 years.

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**CITATION**  
**TO ACCOMPANY THE AWARD OF THE**  
**OFFICE OF THE SECRETARY OF DEFENSE**  
**MEDAL FOR EXCEPTIONAL CIVILIAN SERVICE**  
**TO**  
**OBEE W. KANOBE**

For exceptionally distinguished service as Program Analyst, Human Resources Directorate, Defense Advanced Research Projects Agency, from May 1991 to January 2007. During this period, Mr. Kanobe consistently demonstrated superior management and personnel administrative skills. He applied his detailed, in-depth knowledge of administration to improve all areas of the Agency's personnel administrative posture. As a result, the agency was able to not only attract the best scientists and engineers available, but also provided to them the best personnel administrative support thus enabling them to focus on their scientific programs. Mr. Kanobe's initiative, dedication, and demonstrated superior achievement in service to his country greatly reflect credit upon himself and the Department of Defense. For all his contributions, I take pleasure in presenting Mr. Kanobe with the Office of the Secretary of Defense Exceptional Civilian Service Award.

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## **ANNEX F JOINT TRAINING, DOD TEST RANGES, AND FACILITIES**

The Joint Test and Evaluation (JT&E) Program Office (JPO) removed Annex F from this version of the handbook. JPO will revise the annex content and include it in the next version.

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## **ANNEX G LOGISTICS MANAGEMENT**

### **G.0 Introduction**

This annex establishes policies, prescribes procedures, and assigns responsibilities for logistics management for the Joint Test and Evaluation (JT&E) Program. It provides information and guidance for all personnel involved in JT&E logistics management functions (real property, supply, storage, and property book). This annex is applicable to all military, government civilians, and technical support contract personnel associated with JT&E projects.

A key ingredient to a successful JT&E project is having the right equipment and supplies on hand at the proper time. To accomplish this, the Joint Test Director (JTD), Quick Reaction Test (QRT) Director, or Joint Feasibility Study (JFS) Director (FSD) must identify needed resources to the proper offices in sufficient time to make them available. The JT&E Program's structure includes experts in the field of logistics who are available to assist in JT, QRT, and JFS logistics planning. The JTD, QRT Director, or FSD must work with these offices to ensure the necessary equipment is available.

The lead Service, Combatant Command (COCOM), and/or other Department of Defense (DOD) agency sponsor for a joint test (JT), QRT, or JFS provides expendables, facilities, utilities, computers, and software, and is responsible for the maintenance of these items. The lead Service, COCOM, and/or other DOD agency may also provide other equipment and supplies, as required. While this helps spread the burden over several sources, it complicates matters due to the different procedures practiced within each organization.

### **G.1 Responsibilities**

#### **G.1.1 Joint Test and Evaluation Program Manager**

The JT&E Program Manager (PM) is located at the JT&E Program Office (JPO) in Alexandria, Virginia, and has responsibility and accountability for the JT&E Program that includes logistics management functions. The JT&E PM, in concert with applicable federal and departmental regulations and directives, establishes logistics management policies and procedures for the JT&E Program, including property management and inventory control records, and oversees their execution. The JT&E PM is the signature authority for all JT&E program logistics support memorandum of agreement (MOA) documents with all supporting organizations.

#### **G.1.2 Property Manager, Joint Test and Evaluation**

The JT&E Property Manager (PM-JTE), appointed by the JT&E PM, is located in the JT&E-Suffolk facility. The PM-JTE maintains the JT&E property records and database for the JT&E PM and executes the JT&E property management program. The PM-JTE performs database reconciliation and conducts, with the assistance of each JT&E project's personnel, an annual physical inventory of all JT&E property, reporting discrepancies to the JT&E PM.

### **G.1.3 Warehouse Manager, Joint Test and Evaluation Program**

The warehouse for JT&E property is located in Fort Walton Beach, FL. The Warehouse Manager stores, distributes, and disposes of government property owned by the OSD in support of JT&E activities in accordance with current DOD regulations, government policies, and JPO directives.

### **G.1.4 Joint Test Director, Quick Reaction Test Director, and Joint Feasibility Study Director**

Each JTD, QRT Director, and FSD has responsibility and accountability for all property, including software, provided to or acquired through the JT&E project. The JTD, QRT Director, or FSD, if property is sub-custody of the JT&E PM, will appoint, in writing, a Property Custodian (format of letter located in appendix G-1). The JTD, QRT Director, or FSD will fully coordinate all logistics support MOA documents with the supporting organization and submits to the JT&E PM for signature prior to enacting any portion of the MOA. (A sample logistics MOA is located in appendix G-2).

### **G.1.5 Property Custodian for JT, QRT, or FSD**

The JTD, QRT Director, or FSD-assigned property custodian establishes and maintains a database for the JT, QRT, or JFS property, including software, by maintaining inventory records and managing property transactions, including requisitions, receipts, sub-hand receipts, and turn-ins. The property custodian:

- Updates the JT, QRT, or JFS property database within 30 days of property receipt
- Conducts annual physical inventory of all OSD property and provide results to the PM-JTE
- Provides database reconciliation of JT&E property and provides results to the PM-JTE
- Maintains property accountability through a hand-receipt using Department of the Army (DA) Form 3161 and DA Form 2062 (appendixes G-3 and G-4)
- Ensures accountability of all property purchased by support contractor(s)
- Ensures 100% of inventory is complete, if relieved of duties, and that signed inventory is forwarded to the PM-JT&E

### **G.1.6 Support Contractor Program Manager or Principal Investigator**

The Support Contractor Program Manager (SCPM) or Principle Investigator (PI) fully accounts for all contractor-purchased JT&E-funded property. Prior to purchase, the SCPM or PI obtains written approval from the JTD, QRT Director, FSD, or designated representative via Optional Form 347, Order for Supplies or Services (appendix G-5), or Department of Defense (DD) Form 250, Material Inspection and Receiving Report (appendix G-6). The SCPM or PI transfers all equipment and software purchased for the Government to the JT, QRT, or JFS Property Custodian using Optional Form 347.

## **G.2 General Procedures**

The PM-JTE maintains property accountability of JT, QRT, or JFS assets through a system of property books and hand receipts. Accountable property, including software, procured with JT&E funds will be recorded in property books maintained by each JT, QRT, or JFS and the master database maintained by the PM-JTE and the custodian for JT&E project's property. The JTD, QRT Director, or FSD receipts for installation property received from the designated host-



installation. Service resources used during a JT, QRT, or JFS will remain on the property books of the organization providing the resource, hand-receipted from the supporting organization, as required.

### **G.2.1 Database**

The JT, QRT, or JFS Property Custodian maintains a property database for assigned JT&E property as indicated in appendix G-7. This database includes the following information:

- Item
- Make
- Model
- Serial number or software license number
- Bar code number
- Stock number
- Acquisition cost
- Acquisition date
- Location of property
- Warranty
- Remarks
- Inventory Date
- Contract Number
- Purchase Order Number

### **G.2.2 Property Transfer**

The PM-JTE must approve the transfer of property from one JT, QRT, or JFS to another. The request must indicate the gaining and losing organization, description of the transfer item, the serial number or software license number, and the bar code number.

Once the PM-JTE approves the transfer, the losing JT, QRT, or JFS Property Custodian notifies the gaining JT, QRT, or JFS Property Custodian of the intent to transfer the property and prepares a DD Form 1149, Requisition and Invoice/Shipping Document (see appendix G-8).

The gaining JT, QRT, or JFS arranges for the transport of all transferring property and pays all associated shipping costs. (Exception: all property shipped to the warehouse manager located in Fort Walton Beach, FL is the responsibility of the losing JT, QRT, or JFS.)

The gaining JT, QRT, or JFS Property Custodian signs for the property and forwards a copy of the signed documentation back to the losing organization property custodian within 10 working days of receipt.

### **G.2.3 Property Turn-In**

The property custodian reports serviceable JT&E-funded property, no longer required by a JT, QRT, or JFS, to the PM-JTE for disposition instructions. The JT, QRT, or JFS Property Custodian reports unserviceable JT&E-funded property to the PM-JTE, to request disposition instructions prior to turn in to Defense Reutilization and Marketing Office

(DRMO). The JT, QRT, or JFS Property Custodian maintains a signed copy of DD Form 1348-1A, Issue Release/Receipt Document (see appendix G-9).

Property turned-in to the JT&E warehouse, especially audiovisual and automated data processing (ADP) equipment must include all issued cables and documentation for all software and hardware. All ADP equipment must have a functional operating system. DD Form 1149 (see appendix G-8) accompanies all equipment and must include the bar code number, item description, and serial number. Property custodians will turn-in all software to the JT&E-Suffolk facility.

### **G.3 JT and JFS Establishment**

The Services provide most of the personnel, equipment, and facilities required to support a JT or JFS. The FSD should include Service resource requirements in their initial consolidated resource estimate (CRE) to ensure resources and funding is available to support the requirement. The lead Service, COCOM, or other sponsoring agency is responsible for providing most support resources required by the JT or JFS to include furniture and administrative equipment.

JTs and JFSs will utilize existing and suitable equipment made available by the lead Service, COCOM, and/or other sponsoring DOD agency. The JTD or FSD will bring to the attention of the JT&E PM those requirements not provided by the Service, COCOM, or other DOD sponsoring agency. The JT&E PM may be able to meet some of these needs from equipment that purchased and utilized by prior JT&E projects. The JT&E PM may provide JT&E funds to acquire unique or special equipment required for the JT or JFS to support requirements not otherwise available.

#### **G.3.1 Facilities**

The lead Service, COCOM, or other DOD sponsoring agency is responsible for providing the JT or JFS with facilities, including building(s), furniture, and administrative equipment. Facilities include such things as heat, light, safes, computers, and access to network bulletin boards and on-line services (such as Internet services). JTDs or FSDs will arrange facilities to support deployed operations or detachments through negotiations with the host installation at the deployed or detachment location. It is unlikely that JFS facilities will be adequate to house a fully staffed JT team after charter. The JFS facility, however, should be adequate to house the initial cadre, thus providing the JTD time to negotiate with the host installation for the required space. The FSD should have developed an estimate of JT facility requirements and coordinated these concerns with the host installation. The JTD and the lead Service Operational Test Agencies' (OTA) or other sponsoring agency point of contact (POC) should negotiate with the host installation to obtain the required facilities. The JTD will normally formalize these negotiations in an Inter-Service Support Agreement (ISSA) between the JT and the host installation.

Assuming the JT will consist of 40-60 personnel, the JTD should acquire the use of 6,000-9,500 square feet of usable office floor space (approximately 150 square feet per person), preferably in a single building. While the JT will use most of the space for offices and individual work areas, one conference area of at least 500 square feet should be available for

use as a collective work area. The JTD should also consider the requirement for another 1,000-1,500 square feet of separate space to house secure ADP equipment, if required.

### **G.3.2 Equipment**

The JFS, in coordination with the lead and participating Services and agencies, develops an estimate of the resources required to support daily JT operations and to execute test events in the CRE. An outline for a CRE is included in annex L.

The FSD also consolidates those portions of the CRE that are applicable to the respective Service and prepare them in the proper format for submission to the Service OTA.

Resource requirements submitted to the Service OTAs should include daily JT support requirements. This request for resources should be available to the JTD after charter.

If the JFS did not prepare a request for Service resources, the JTD must review and submit the request to the respective OTA as soon as possible. This will provide an initial establishment of the JT's resource requirements in the Service's resource management planning systems. The JTD must then revise these resource requests as test planning matures or as significant changes occur. If the JFS did not accomplish a CRE or prepare the Service's request for resources, the JTD must make the submission of resource requirements to the Service OTA a priority.

### **G.3.3 Automatic Data Processing and Communications Equipment**

The provision of adequate ADP and communications equipment is also the responsibility of the lead Service, COCOM, or other sponsoring agency, but the identification of requirements is the responsibility of the JTD. The JTD must establish and coordinate these requirements with the lead Service OTA and the JT&E PM early in the project to determine what equipment the JT&E Program can provide.

JTs should base ADP equipment requirements on the complexity and functional requirements of the JT, the size and structure of the organization, and the number of operating locations. Database hardware and software will be a major consideration in developing the ADP equipment requirements, including storage, speed of processing, number of users, and geographic separation. In establishing ADP equipment requirements, the JTD must also consider such things as technical interface capabilities with the OSD and the Services' ADP networks. The capability to exchange and manipulate data between organizations or agencies involved with the JT may be very helpful.

Communications requirements must include sufficient telephone instruments and lines to handle the expected number of incoming and outgoing calls. The telephone system should have a call forwarding capability and a message recording capability that JT personnel can access from an external telephone to listen to recorded messages. The telephone system should also have the capability of both inbound and outbound commercial and Defense Switched Network (DSN) calls, with secure and non-secure, facsimile, modem, and internet capabilities. The JTD should recognize that acquiring telephone lines on a military installation could sometimes take four to six weeks.

#### **G.4 Closedown**

The JTD, QRT Director, or FSD is responsible for the disbanding of project teams and disposal of all property. The JT, QRT, or JFS should develop a checklist for assuring the return of all acquired resources in proper condition to the appropriate custodians or are disposed of in accordance with applicable directives. Closedown of the JT, QRT, or JFS involves two categories of assets: facilities and property (see Table G-1). Six months before the scheduled close down, the PM-JTE along with the property custodian will conduct a 100% inventory of all OSD equipment and software. The property custodian will also publish a listing of equipment (description and condition) to each JT, QRT, or JFS and the JT&E PM, allowing other JT&E projects the opportunity to requisition equipment from this list. JTs and JFSs will turn-in all excess software to the JT&E-Suffolk facility. The JT&E PM must approve all transfers prior to any transactions.

The PM reallocates equipment based on the following priority:

- Newly chartered JTs and newly directed JFSs
- Ongoing JTs and JFSs
- QRTs
- Test product recipients, after approval of a formal memorandum of understanding (MOU)

In no case should the JTD, QRT Director, or FSD take any action or make any commitments regarding the disposition of JT&E property to another organization without approval by the JT&E PM. While there may be a valid need for the JT&E property by organizations outside the JT&E community, JT&E projects will not transfer JT&E property to these organizations without prior approval.

Service property provided or purchased by the Service(s) remains the property of that Service and returned to that Service when no longer needed. The JTD, QRT Director, or FSD should coordinate the return of the property through the Service OTA POC who will provide disposition instructions. The property custodian will conduct an inventory of all such property prior to physical transfer of the property back to the owning Service.

In cases involving test products, the PM may make special provisions for the temporary reassignment of specific property to aid in the institutionalization of test products.

**Table G-1. Disposition of Assets**

Asset	Comment
Facilities	The return of facilities is in accordance with procedures coordinated between the JTD, QRT Director, or FSD, the lead Service OTA POC, and the host installation.
Property	The JT, QRT, or JFS may have: Property provided for or purchased by the Services Property provided by the JT&E program Property purchased with JT&E funds remains JT&E property. The JT, QRT, or JFS will return all JT&E property assigned to, or purchased by, the JT, QRT, or JFS to PM-JTE control when no longer required for the mission. The JT&E project will conduct an inventory of JT&E property prior to transfer.

**G.5 List of Appendices**

Table G-2 provides a list of appendices to annex G.

**Table G-2. List of Appendices to Annex G**

Appendix	Title
G-1	Appointment of Property Custodian
G-2	Sample MOA
G-3	DA Form 3161
G-4	DA Form 2062
G-5	Optional Form 347
G-6	DD Form 250
G-7	Property Database
G-8	DD Form 1149
G-9	DD Form 1348-1a

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## **APPENDIX G-1 APPOINTMENT OF PROPERTY CUSTODIAN**

17 Feb 99

### **MEMORANDUM FOR**

**FROM:** OSD JTFF JTD  
202 Cherokee Ave STE 1  
Eglin AFB FL 32542-5602

**SUBJECT:** Appointment of Property Custodian

1. The following individual is appointed the property custodian for the JTFF JT.

NAME	RANK	DUTY PHONE
John E. Doe	TSgt	822-4078

2. Any questions, please contact TSgt Doe, 882-4078.

JOHNNY D. DEPP, Colonel, USAF  
Director

**COPY FURNISHED:**  
PM-JTE

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## APPENDIX G-2 SAMPLE MEMORANDUM OF AGREEMENT

### LETTERHEAD

#### MEMORANDUM OF AGREEMENT

Between

DIRECTOR, OPERATIONAL TEST AND EVALUATION

DEPUTY DIRECTOR, AIR WARFARE

JOINT TEST AND EVALUATION PROGRAM

and

THE 353rd COMBAT TRAINING SQUADRON

EIELSON AFB, AK

1. PURPOSE: The purpose of this MOA is to establish and define responsibilities, functions of support services, and operations to be performed by the JT&E PM, and the 353rd Combat Training Squadron (CTS), in the joint performance of their assigned missions. Specifically, the purpose of this MOA is to establish their terms by which JT&E Program Office loans a suite of the Player Event Reconstruction System (PERS), a major legacy product of the Joint Combat Search and Rescue (JCSAR) JT, to a recipient organization, the 353 CTS.

2. AUTHORIZATION: The responsibilities and functions contained in this MOA are within the assigned missions of both organizations. This agreement is authorized and executed under the direction of the Commander, 353 CTS and the JT&E PM. Any major changes of this agreement, particularly any changes having an impact on the resources of either the JT&E program or the 353 CTS, will be coordinated between the two organizations' principals prior to implementation.

3. PERIOD OF AGREEMENT: This MOA is effective upon signature by the JT&E PM, and the Commander, 353 CTS. The JT&E program will retain ownership of equipment purchased with OSD funds to construct the PERS suite. This equipment and attendant software (including licenses) will be on loan to 353 CTS through FY 03. If still required for JCSAR exercise-related support, the equipment loan, with prior coordination with the JT&E PM, may be renewed for another five-year period through FY 08. This MOA specifically covers the period from the effective date through FY 03. This MOA terminates effective 30 Sep 03.

4. ADMINISTRATION: Administration of, and ensuring compliance with, the provisions and details of this MOA is the responsibility of the JT&E PM and the Commander, 353 CTS. Each will appoint a representative to be their organization's focal point for routing, administration, and management of this MOA and related actions.

- a. The JT&E PM focal point for PERS suite equipment matters is Ms. Cynthia Lindberg-Ross, 703-681-5495.
- b. The 353 CTS focal point for PERS suite equipment matters is Captain Chad Russell, 904-377-3023.

GENERAL RESPONSIBILITIES:

- a. The JT&E PM will:
  - 1. Loan one PERS suite to the 353 CTS for use in conducting JCSAR-related exercises.
  - 2. Upon request by the 353 CTS before 30 Sep 03, consider renewal of the loan of the PERS suite through FY 08.
- b. The 353 CTS will:
  - 1. Accept responsibility for the PERS suite via signed hand receipt.
  - 2. Assume responsibility for operation and maintenance of the PERS suite after installation and training.
  - 3. Make PERS suite available to other organizations within the DOD JCSAR community who wish to review prior test or training missions for analysis or assessments.
  - 4. Assume responsibility for follow-on (FY 00 and beyond) funding and contract arrangements for continued PERS support.
  - 5. Assume responsibility (FY 00 and beyond) for any costs required for PERS hardware or software upgrades. Such upgrades will become the property of the 353 CTS.
  - 6. Should the PERS equipment either fail beyond economical repair or become obsolete before the end of FY 03, the 353 CTS will contact the PM-JTE for disposition instructions.
  - 7. Assume all shipping costs associated with the transfer of property to their location and return to the JT&E warehouse, 107 Lewis Street, Fort Walton Beach, FL 32547. It is their responsibility to arrange the transport for the property. A Military Interdepartmental Purchase Request (MIPR) needs to be sent to the JT&E Deputy PM located at the United States Army Engineering Research and Development Center, Waterways Experiment Station, Vicksburg, MS to cover the transportation cost before the items are shipped.

6. FINANCIAL SUPPORT: Any funds required to support temporary duty related travel will be funded by the traveling member's organization. No other funding support is involved.

7. EFFECTIVITY: This MOA is effective when signed by the JT&E PM and the Commander, 353 CTS.

James Thompson, GS-15  
Program Manager  
JT&E Program  
Washington, DC

JAMES E. CARTER, Lieutenant Colonel, USAF  
Commander  
353rd Combat Training Squadron  
Eielson AFB, AK



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## APPENDIX G-5 OPTIONAL FORM 347

ORDER FOR SUPPLIES OR SERVICES						PAGE 1 OF 2 PAGES	
IMPORTANT: Mark all packages and papers with contract and/or order numbers.							
1. DATE OF ORDER 18 Feb 99		2. CONTRACT NO. (If any) FO8635-97-D-XXXX		6. SHIP TO:			
3. ORDER NO. 99-0100		4. REQUISITION/REFERENCE NO. 9049-001		a. NAME OF CONSIGNEE OSD/JICBM JTF			
5. ISSUING OFFICE (Address correspondence to) OSD/JICBM JTF				b. STREET ADDRESS 202 Cherokee, Suite One			
7. TO:				c. CITY Eglin AFB		d. STATE FL	e. ZIP CODE 32542-5000
				f. SHIP VIA UPS-Ground			
a. NAME OF CONTRACTOR Mr John Jones, CEO				8. TYPE OF ORDER			
b. COMPANY NAME G&G Engineering, Inc				<input checked="" type="checkbox"/> a. PURCHASE REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input type="checkbox"/> b. DELIVERY - Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
c. STREET ADDRESS 6001 North Hampton Way, Suite 400							
d. CITY Alexandria		e. STATE VA		f. ZIP CODE 22311			
9. ACCOUNTING AND APPROPRIATION DATA Task: 97003.20.13				10. REQUISITIONING OFFICE JICBM, Eglin AFB, FL			
11. BUSINESS CLASSIFICATION (Check appropriate box(es))							
<input checked="" type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input checked="" type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED							
12. F.O.B POINT		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS	
13. PLACE OF		N/A		1 Mar 99		NET 30	
a. INSPECTION Eglin AFB, FL		b. ACCEPTANCE Eglin AFB, FL					
17. SCHEDULE (See reverse for Rejections)							
ITEM NO. (a)	SUPPLIES OR SERVICES (b)			QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
	The following items will be procured by G&G Engineering for the U.S. Government.						
001	CPU, Pentium 600 w/ 19" Color Monitor			6	Ea	3,100.00	18,600.00
002	Printer, HP 5M Color			2	Ea	4,800.00	9,600.00
003	Cell Phone, Digital (Nokia 2160)			8	Ea	159.00	1,272.00
004	CPU Palm Top (Toshiba Libretto 110CT) W/ MS WIN NT			10	Ea	2,100.00	21,000.00
SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT	20. INVOICE NO.		17(h) TOT. (Cont. pages)	
	21. MAIL INVOICE TO:						
	a. NAME OSD JT&E Program Mgmt Office (Attn: Ms Bloomer)						
	b. STREET ADDRESS (or P.O. Box) 2001 N Beauregard, Suite 800						
	c. CITY Alexandria		d. STATE VA	e. ZIP CODE 22311		50,472.00	17(i) GRAND TOTAL
22. UNITED STATES OF AMERICA BY (Signature)				23. NAME (Typed) John H. Quackenbush Col, USAF Joint Test Dir TITLE: CONTRACTING/ORDERING OFFICER			
NSN 7540-01-152-8083 PREVIOUS EDITION NOT USABLE				Designed using Perform Pro, WHS/DIOR, May 96 50347-102 OPTIONAL FORM 347 (REV. 6/95) (EG) Prescribed by GSA/FAR 48 CFR 53.213(e)			

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## APPENDIX G-6 DD FORM 250

MATERIAL INSPECTION AND RECEIVING REPORT						Form Approved OMB No. 0704-0248		
<p>Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of management and Budget, paperwork Reduction Project (0704-0248), Washington DC 20503/</p> <p style="text-align: center;">PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. SEND THIS FORM IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN THE DFARS, APPENDIX F-401</p>								
1. PROC. INSTRUMENT IDEN. (CONTRACT) FO8635-97-D-0016			2. (ORDER) NO.		6. INVOICE NO./DATE		7. PAGE OF	8. ACCEPTANCE POINT
2. SHIPMENT NO.		3. DATE SHIPPED		4. B/L TCN		5. DISCOUNT TERMS		
9. PRIME CONTRACTOR CODE				10. ADMINISTERED BY CODE				
11. SHIPPED FROM (If other than 9) CODE				12. PAYMENT WILL BE MADE BY CODE				
13. SHIPPED TO CODE				14. MARKED FOR CODE				
15. ITEM NO.	16. STOCK/PART NO. DESCRIPTION (Indicate number of shipping containers - type of container - container number.)			17. QUANTITY SHIP/REC'D *	18. UNIT	19. UNIT PRICE	20. AMOUNT	
22. CONTRACT QUALITY ASSURANCE						22. RECEIVER'S USE		
<b>A. ORIGIN</b>  <input type="checkbox"/> CQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.  DATE RECEIVED _____ SIGNATURE OF AUTH GOV'T REP _____  TYPED NAME AND OFFICE _____			<b>B. DESTINATION</b>  <input type="checkbox"/> CQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.  DATE RECEIVED _____ SIGNATURE OF AUTH GOV'T REP _____  TYPED NAME AND OFFICE _____			Quantities shown in column 17 were received in apparent good condition except as noted.  DATE RECEIVED _____ SIGNATURE OF AUTH GOV'T REP _____  TYPED NAME AND OFFICE _____  <i>* If quantity received by the Government is the  same as quantity shipped, indicated by (✓)  mark; if different, enter actual quantity received  below quantity shipped and encircle.</i>		
23. CONTRACTOR USE ONLY								

DD FORM 250, NOV 92 (EG)

Previous edition may be used.

Designed using Perform Pro, WHS/DIOR, Nov 95

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## APPENDIX G-7 PROPERTY DATABASE

End Item Selected Change

Key Data

Bar Cd: JT18546      UIC: PM0001

Serial Nbr: CN02Y3157161845MABEO      HRH Nbr: PMO

Stock Nbr: 703501F001233      Nomen: MONITOR, FLAT SCREEN

Doc Nbr: PM0020805      Fund Cd/Appn: 99

Mfr Yr: 2005      Mfr Key: 4      Mfr Ser Nbr:

Authn Ctl Nbr:      Eff Dt: 20051208      Acq Dt: 20050103

Asset Cd: K -Equipment      Office: WATERWAYS

Cptl Cd: -N/A      Loc: PMO/WATERWAYS

Exp Cd: 2 -Unfunded      Sub Loc:

Lo/Le Cd: -Government Owned      Cond Cd: A -Svcbl (w/o Qual)

Page 1 of 2      Related Data      Next Page      Save      Cancel      Exit

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## APPENDIX G-8 DD Form 1149

SHIPPING CONTAINER TALLY										1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50																			
<b>REQUISITION AND INVOICE/SHIPPING DOCUMENT</b>																				Form Approved OMB No. 0704-0246 Expires Feb 28, 2006									
The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services and Communications Directorate (0704-0246). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.																													
PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION. RETURN COMPLETED FORM TO THE ADDRESS IN ITEM 2.																													
1. FROM: (Include ZIP Code)															SHEET NO.		NO. OF SHEETS		5. REQUISITION DATE		8. REQUISITION NUMBER								
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4. APPROPRIATIONS DATA																				AMOUNT									
ITEM NO.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES										UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CONTAINER	CON-TAINER NOS.	UNIT PRICE	TOTAL COST												
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DD FORM 1149, JUN 2003

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## APPENDIX G-9 DD Form 1348-1a

DD FORM 1348-1A, JUL 91		ISSUE RELEASE/RECEIPT DOCUMENT	
27. ADDITIONAL DATA		24. DOCUMENT NUMBER & SUFFIX (30-44)	
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## ANNEX H SECURITY

### H.0 Introduction

Joint test and evaluation (JT&E) projects, which consist of joint tests (JT), quick reaction tests (QRT), and joint feasibility studies (JFS), typically involve access to, or the production of, sensitive or classified material. The Joint Test Director (JTD), QRT Director, or JFS Director (FSD) must establish procedures to ensure the protection of sensitive or classified information. Department of Defense (DOD) guidance on Information Security (INFOSEC), Personnel Security, Operations Security (OPSEC), Physical Security, Communications Security (COMSEC), and Industrial Security sets minimum requirements to prevent the unauthorized disclosure of sensitive or classified information. Adherence to these requirements is mandatory. The JTD, QRT Director, or FSD is responsible for the development of a security plan that addresses all aspects of security in the daily workplace. These procedures must include consideration for the establishment of controlled access areas and positive identification and control of personnel within the workplace. These procedures must also include consideration for receipt, storage, transmittal, reproduction, and destruction of classified documents, electronic media, and hardware.

JT&E projects must also extend security considerations to remote locations when the test team deploys. The detailed test plan (DTP) for a given test event shall include a security annex that carefully addresses the same considerations given at home as well as unique considerations dictated by the geography of the test event.

### H.1 Organization

The JT&E Program Manager (PM) retains security oversight for all organizations and activities under his purview. JT&E projects residing at locations such as military bases may receive support and be relieved of some degree of responsibility for specific security functions based on the level of support provided. However, a memorandum of agreement (MOA), or the like, between a JT&E project and its supporting interest shall not absolve the JT&E PM or the JTD, QRT Director, or FSD from their ultimate security responsibilities. The JTD, QRT Director, or FSD should construct their MOAs such that they do not relinquish oversight of security.

The JT&E Program Office (JPO) Security Manager represents all JT&E programs and is responsible to the JT&E PM for security oversight, policy, and de-confliction of Service and/or local security policy. This position is located at the JT&E-Suffolk facility and fully supports all JT&E Program security efforts. The JPO Security Manager conducts on-site security program reviews for each JT&E project when requested or about every 18 months for a JT.

The JTD, QRT Director, or FSD, at a minimum, shall appoint a security manager to administer the security program. The JT, QRT, or JFS security manager will conduct an annual security self-assessment utilizing the checklist at appendix H-1. A JT&E project should consider additional security team appointments based on the size and scope of the daily workplace (network security, guard force, and so forth).

## **H.2 SCI Billet Management**

Each JT&E project locally manages non-sensitive compartmented information (SCI) billets and does not require direct oversight by the JPO. The JPO, however, centrally manages SCI billets and the use of an SCI billet structure is a management tool by which the JPO accounts for all personnel having access to SCI. An SCI billet is a specific position identified as requiring access to SCI material. The SCI billets are inherently unique and sensitive, and JT&E projects will keep their numbers to the absolute minimum necessary to ensure mission success.

### **H.2.1 Applicability**

JT&E Program SCI billet management procedures are applicable to all active duty military, DOD civilian, and contractor personnel assigned or attached to a JT&E project performing the job or duties described in the billet title and justification. An individual identified to occupy an approved SCI billet position must meet Director of Central Intelligence Directive (DCID) 6/4 standards or have an approved compelling need granted by the applicable adjudication authority and possess the need to know.

### **H.2.2 Administrative Procedures**

- a. QRT Directors and FSDs should identify, during the development of their organizational billet structure, those billets requiring SCI access. Any billet requiring SCI access must then be justified in writing and submitted for approval.
- b. JTDs should, upon charter, determine if their approved JFS SCI billet list requires additional billets and, if so, submit them for approval. If none were required during the JFS, the JTDs should identify, justify, and submit for approval any SCI billets deemed necessary for the conduct of their JT.
- c. The JT&E Deputy PM is the approval authority for SCI billets within the JT&E Program. JT&E projects will submit requests for both initial SCI billet lists and additions to existing billet lists to the JT&E Deputy PM via the JPO Security Manager. Appendix H-2 provides a sample request letter and billet justifications.
- d. Once approved, the JPO Security Manager will forward SCI billet lists to the Special Security Officer (SSO) at the National Assessment Group (NAG) who is responsible for the day-to-day administration of JT&E SCI billets. JT&E projects may directly liaison with SSO NAG only after the JPO approves the SCI billet list.

### **H.2.3 Management Guidelines**

The following points are guidelines to follow in SCI billet management:

- a. Ensure personnel are in the proper billet and performing the job or duties described in the billet title and justification
- b. JTDs should review their SCI billet rosters annually. When they discover misutilization of an SCI billet, they must take immediate corrective action.
- c. JTDs must consider the re-designation of existing unused billets prior to submitting a request for additional billets. If continued need-to-know cannot be justified, or if JTDs project personnel are not available to fill a billet for more than six months, they should request the vacant billet be re-designated.

### **H.2.4 Special Access Programs**

Special Access Programs (SAP) may or may not be SCI, and, in any case, SAP management and SCI management are mutually exclusive. Neither the JPO nor SSO NAG is directly involved in the management of SAP billets. If JT&E project personnel are required to participate in a SAP, the JTD, QRT Director, or FSD will liaison with the SAP sponsor and ensure proper conduct of SAP matters. The JTD, QRT Director, or FSD will also ensure JPO personnel are included in the SAP. At a minimum, the JT&E Program Manager, JT&E Deputy Program Manager, JT&E Program Technical Director, JT&E Program Action Officer, and one representative from the Joint Test Support Cell (JTSC) must be on the approved SAP roster.

## **H.3 Operations Security**

OPSEC is concerned with identifying, controlling, and protecting generally unclassified evidence that is associated with sensitive operations and activities. It is important because unclassified information of a sensitive nature, improperly handled, can easily provide adversaries with valuable information on current and future operations.

Every test shall publish an OPSEC plan. The goal of the plan should be to specify the test's critical information and the basic measures required to protect that information. The plan should present the organizational policy for protecting sensitive information with emphasis on unclassified but sensitive information. It should delineate specific areas of responsibilities and responsible positions within the organization. It should also include threat information provided by the government for the local area or the area affected by your test events. Bear in mind that many JTs conduct test events on foreign soil so the threat and vulnerabilities are increased. Plan accordingly.

Once published, train the test team so that every member knows and understands what information is critical and how best to protect it. JT&E projects should consider one-on-one conversations, group discussions, formal briefings, and classroom instruction as vehicles for educating project personnel.

## **H.4 Original Classification Authority**

The Deputy Director, Air Warfare (DD, AW), who is the JT&E Program Director, authorizes every JT&E project directors to execute original classification authority (OCA) in their charter letter. OCA authority is both unique and important. The decision to classify information has a substantial impact on DOD operations, and others use these decisions to make proper derivative classification decisions while properly protecting information from unauthorized disclosure. OCA responsibilities are numerous and are detailed in chapter 2 of DOD 5200.1-R, "Information Security".

OCA's must receive training in the fundamentals of security classification, the limitations of their authority, and their duties and responsibilities. Each JT&E project director must certify, in writing to the JPO Security Manager that he or she received training in OCA responsibilities and classification principles in addition to the basic security training on the proper safeguarding of classified information.

Upon departure of the JT&E project director or close down of the project, the OCA must ensure the JT&E project director passes this authority to their successor, or the JT&E Program Manager, for all documents where they exercised OCA so JT&E projects can address future classification issues.

OCA authority does not constitute authority to release information to foreign entities. JT&E projects must staff requests for release of classified information with DOT&E via the JPO Security Manager and will consider each request on a case-by-case basis.

### **H.5 Security Classification Guide**

OCA's are accountable to the Secretary of Defense for their classification decisions. OCA's should document classification decisions early and concisely in writing, preferably by their issuance of a Security Classification Guide (SCG) developed specifically for their JT&E project. A properly written SCG will state which classification level applies to each item of information, provide a concise reason for classification, and prescribe declassification instructions. Detailed guidance is available in DOD 5200.1-H, "DOD Handbook for Writing Security Classification Guidance". The JT&E Program Security Manager can provide additional assistance. Upon publication, JT&E projects should file two copies of their SCG with the Defense Technical Information Center (DTIC) at Fort Belvoir, Virginia.

**APPENDIX H-1 SELF-INSPECTION CHECKLIST (INFOSEC)**

<b>ALL PURPOSE CHECKLIST</b>		<b>PAGE 1</b>	<b>OF 4 PAGES</b>		
<b>TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA</b> SELF-INSPECTION CHECKLIST (INFORMATION SECURITY)		<b>OPR</b> OSD/JT&E	<b>DATE</b>		
<b>NO</b>	<b>ITEM</b>		<b>YES</b>	<b>NO</b>	<b>N/A</b>
1	Has the Program Director or equivalent appointed an official (DOD Civilian GS-7 or above, Military E-5 or above, or Officer) to serve as security manager for the activity, to provide management and oversight of the Information Security Program? DOD 5200.1-R, para.1-201c				
2	Is an ongoing self-inspection program established, and when completed are they signed by Directors and filed for review? DOD 5200.1-R, Para 1-202d				
3	Are approved waivers on hand when provisions of DOD 5200.1-R are not followed? DOD 5200.1-R, Para 1-401				
4	Are OCAs delegated classification authority in writing and under the proper authority? DOD 5200.1-R, Para 2-201				
5	<b>Are there means for OCAs to communicate classification decisions to persons in possession of the information the OCA has classified (security classification guides or memos)? DOD 5200.1-r, Para 2-306</b>				
6	Has each OCA provided an electronic version of their classification guidance to the appropriate activities to include DTIC and it the SCG reviewed and updated every 2 years? DOD 5200.1-R, Para 2-502				
7	Is there a process for handling classification challenges and is this process followed when required? DOD 5200.1-R, Para 4-900b				
8	Is there a plan for all activities that possess classified information, which is 25 years old or older and of permanent historical value to perform declassification reviews of the information before April 2000? DOD 5200.1-R, Para 4-300a				
9	Is there a plan for all activities with classified material to receive, process, and respond to requests for mandatory declassification review of classified information? DOD 5200.1-R, Para 4-401				
10	Is the non-disclosure agreement (Standard Form 312, Classified Information Nondisclosure Agreement) utilized and processed correctly by both Government and DOD Contractors? DOD 5200.1-R, Para 9-200				
11	Are emergency plans developed for the protection, removal, or destruction of classified material in case of fire, natural disaster, civil disturbance or terrorist activities to minimize the risk of its compromise? DOD 5200.1-R, Para 6-303				
12	Are ongoing procedures in place to ensure holdings of classified				

	material are reduced to the minimum required for mission accomplishment? DOD 5200.1-R, Para 6-400, and 6-700b			
13	Is SF Form 700, Security Container Information, used for each vault or secure room door and security container to record its location and pertinent information on individuals who are to be contacted if the container is found open or unattended? DOD 5200.1-R, Para 6-404b(3)			
14	Are combinations to security containers, vaults and secure rooms changed as required? DOD 5200.1-R, Para 6-404b(1) and related subparagraphs			
15	Do certified locksmiths repair GSA approved security containers and annotate in writing the container still meets GSA standards? DOD 5200.1-R, Para 6-401			
16	Has the activity established control procedures governing the reproduction of classified material? DOD 5200.1-R, Para 6-502			
17	Is an annual "clean-out-day" established to focus on and emphasize reduction of classified holdings? DOD 5200.1-R, Para 6-700b			
18	Are only NSA approved methods and equipment used for the destruction of classified material? Is the equipment on hand or easy to obtain and use? DOD 5200.1-R, Para 6-701b			
19	Are all prerequisites met before hand carrying of classified material is approved? DOD 5200.1-R, Para 7-300a and related subparagraphs			
20	Are couriers briefed on their security responsibilities prior to hand carrying classified material? DOD 5200.1-R, Para 7-300b and related subparagraphs			
21	Do authorizing officials provide written authorization to all individuals escorting or carrying classified material? DOD 5200.1-R, Para 7-301a			
22	Are procedures established for issuance and use of DD Form 2501, Courier Authorization Card (for Government only)? DOD 5200.1-R, Para 7-301b and related subparagraphs			
23	Do Contractors have on file with the Security Manager a contractor courier authorization memo and/or letter?			
24	Are procedures in place for reporting security incidents involving classified information? DOD 5200.1-R, Para 10-101 and related subparagraphs			
25	Are damage assessments conducted as required? DOD 5200.1-R, Para 10-104 and related subparagraphs; and AFI 31-401, Para 9.9 and related subparagraphs			
26	Are reporting and oversight mechanisms in place to ensure that inquiries and/or investigations are conducted when required, that they are done in a timely manner, closed by program directors, and that appropriate management action is taken to correct identified problems? DOD 5200.1-R, Para 10-106			
27	Is a program for protecting NATO classified information established			



	IAW DOD 5200.1-R, Para 1-303			
28	Are administrative controls employed for Top Secret material? DOD 5200.1-R, Para 6-402 and related subparagraphs			
29	Is a system of technical, physical, administrative and personnel control measures in place to ensure that access to classified information is limited to authorized personnel? DOD 5200.1-R, chapter 6, 6-100, and section 2 inclusive, and appendix G.			
30	Are procedures developed and employed to accommodate visits to the activity, which involve access to, or disclosure of, classified information? DOD 5200.1-R, Para 6-202			
31	Do classified meetings and conferences (facilities) meet minimum requirements for approval? DOD 5200.1-R, Para 6-307a			
32	Are entrances to secure rooms under positive entry control at all times during duty hours to prevent entry by unauthorized personnel? DOD 5200.1-R, Para 6-404c and 6-404d			
33	Are approved methods for transmitting classified information used? DOD 5200.1-R, Para 7-101 thru 7-105			
34	Is classified material prepared correctly for transmission? DOD 5200.1-R, Para 7-200 and 7-201			
35	Do classified documents bear the required markings and are the marking in the correct format? DOD 5200.1-R, chapter 5, Para 5-102 and sections 2 through 7; and AFI 31-401, Para 4.1			
36	Are removable AIS storage media marked with the appropriate SF label? DOD 5200.1-R, Para 5-409			
37	<b>Are classified document cover sheets used on classified documents not in secure storage? DOD 5200.1-R, Para 6-301a</b>			
38	Are End-of-Day Security Checks for all security containers and secure rooms conducted as required? DOD 5200.1-R, Para 6-302			
39	Are activity security procedures developed for information processing equipment to prescribe appropriate safeguards? DOD 5200.1-R, Para 6-309			
40	Are GSA-approved security containers (Safes) with locks meeting FFL 2740a/vaults/secure rooms used? DOD 5200.1-R, appendix G.			
41	Do all safes used for storing classified material have a GSA label, or equivalent forms and/or memo annotated by a certified locksmith confirming the safe is a GSA approved container? AFI 31-401, Para 5.19			
42	Are intrusion detection systems employed to protect classified information when required? DOD 5200.1-R, Para 6-402(1)(c) and 6-402(2)			
42	Are required procedures followed for hand carrying or escorting classified material aboard commercial passenger aircraft? DOD 5200.1-R, Para 7-302 and related subparagraphs			
43	Is a Security Education Program established? DOD 5200.1-R, Para 1-202c			

44	Are new employees given Security Education training upon arrival and is the training documented in the employee's or Security Manager's file?			
45	Is Security Education a continuing program and is the training documented in such a way to show the material was received or viewed?			
46	Are Security Visual Aids used through out the organization to remind security procedures?			
47	Have Original Classification Authorities (OCA's) received required training? DOD 5200.1-R, Para 2-202			
48	Has the JT&E program office signed a memo appointing program director as OCA?			
49	Has a program classification guide been developed and approved by the OCA and have 2 paper copies and 1 floppy (MS Word or .pdf format) been sent to DTIC?			
50	Are all personnel who are cleared for access to classified information provided an initial orientation to the Information Security Program before being allowed access to classified information? DOD 5200.1-R, Para 9-200 and related subparagraphs			
51	Do declassification authorities, derivative classifiers, security personnel and others receive specialized training as required? DOD 5200.1-R, Para 9-302 thru 9-304			
52	Do all personnel who receive initial and specialized training also receive annual refresher training? DOD 5200.1-R, Para 9-401			
53	Do cleared employees who leave the organization or whose clearance is terminated receive a termination briefing? DOD 5200.1-R, Para 9-500 and related subparagraphs			
54	Do Security Managers attend required training such as courses offered by IOSS and DSS? Is such training recorded?			
55	Can Programs track official visitors in such a way to show clearance and dates of visit and is such information made available for up to 2 years?			
56	Are photo copiers inspected by Security Manager and if they contain any residual memory devices such as hard drives or cache memory chips clearly marked "Not Authorized for Classified Reproduction"			
57	Are keys controlled by Security Manager to sensitive and/or high value areas if required?			



**APPENDIX H-2 SELF-INSPECTION CHECKLIST (PERSEC)**

<b>ALL PURPOSE CHECKLIST</b>		<b>PAGE 1 OF 2 PAGES</b>			
<b>TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA</b> SELF-INSPECTION CHECKLIST (PERSONNEL SECURITY)		<b>OPR</b> OSD/JT&E	<b>DATE</b>		
<b>NO</b>	<b>ITEM</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	
1	Has the Director appointed an individual to manage the personnel security program? EO 12968, Part 6, section 6.1				
2	Are Directors responsibly identifying positions requiring access to classified information, continuously evaluating those persons with access, and promptly reporting adverse information on cleared personnel? DOD 5200.2-R, Chap 7, Para 7-100, Chap 9, Para 9-100-102				
3	Has the organization designated sensitive computer and computer re-related positions, which require a personnel security investigation IAW DOD 5200.2-R, appendix K?				
4	Are procedures in place to ensure that other critical positions (for example special access, SCI, system and/or network administrators) have appropriate and current investigations? DOD 5200.2-R, Chap 5, Para 5-102				
5	Has the organization developed policies and procedures which are in consonance with DOD 5200.2-R, section 4, for processing security clearances for military, DOD civilian and contractor personnel who are employed by or serving in a consulting capacity to the DOD, when access to classified information or material is required in connection with their official duties?				
6	Are procedures in place ensuring that each DOD military, civilian, consultant, and contractor employee occupying special sensitive, critical or non-critical sensitive positions, possessing a Top Secret or Secret clearance or occupying a SAP position and non-United States citizens holding a limited access authorization, are subjected to a periodic reinvestigation initiated from the date of completion of the last investigation? DOD 5200.2-R, Chap 3, Section 7, Para 3-700, App B, Para 3 and 4				
7	Does only a designated authorized requester request personnel security investigations? DOD 5200.2-R, Chap 2, Section 5, Para 2-500				
8	Is there a program or procedures established to counsel and assist employees who are experiencing problems in their personal lives with respect to areas such as financial, medical or emotional difficulties? DOD 5200.2-R, Chap 9, Para 9-101b				
9	Does the Security Manager have Electronic Personnel Security Questionnaires (EPSQ) loaded and is it available for program personnel to use?				

10	Using EPSQ, does authorized requester personnel review all SF 85's and 86's to ensure they are correct prior to forwarding them to the appropriate investigative agency?			
11	Do internal procedures require all personnel possessing a DOD security clearance to report to their security office all contacts with individuals of any nationality, whether within or outside the scope of the employee's official activities, when unauthorized access to classified or sensitive information is sought or possibly targeted for exploitation by a foreign entity? DOD 5200.2-R, Chap 9, Para 9-203a			
12	Does the security manager maintain or have access to the following publications to include supplements, page changes, policy memorandum, and so forth? DOD 5200.2-R, and DOD service related Personnel Security Regulations or Instructions?			
13	Do Directors granting access to classified information ensure the individual requesting access has the required security clearance eligibility, need to know, and has signed a SF 312, Classified Information Non-Disclosure Agreement? DOD 5200.2-R			
14	Has the program properly granted Limited Access Authorization(s) to non-United States citizens when there have been compelling circumstances to grant access to classified information in furtherance of DOD mission? DOD 5200.2-R, Chap 3, Section 4, Para 3-402?			
15	Are SIFs established by unit commanders when unfavorable information is developed locally on an assigned or TDY member directly impacting the individual's suitability for clearance? DOD 5200.2-R, Chap 8, Para 8-102a			
16	Is the AF Form 2587, Security Termination Statement, or DOD service equivalent accomplished upon withdrawal of an individual's security clearance, separation, or termination of employment? DOD 5200.2-R, Para 9-204a			
17	Are personnel security investigative reports stored in a vault, safe, or steel file cabinet having at least a lock bar and an approved three-position dial-type combination padlock or in a similarly protected area and/or container? DOD 5200.2-R, Chap 10, Para 10-103			
18	Does the Director maintain an active oversight of the continuing security education and awareness of the personnel security program? EO 12968, Part 6, Section 6.1,			
19	Are supervisory personnel familiar with their special responsibilities in matters pertaining to personnel security, with respect to personnel under their supervision? DOD 5200.2-R, Chap 9, Para 9-102			
20	Are Directors ensuring that personnel assigned to sensitive duties or other duties requiring a trustworthiness determination are initially indoctrinated and periodically instructed thereafter on the national security implication of their duties and on their individual responsibilities? DOD 5200.2-R, Chap 9, Para 9-101a, and Para 201			

21	Is there a program established to provide, annual security training for personnel having continued access to classified information? DOD 5200.2-R, Chap 9, Para 9-202			
22	Do Security Managers have access to Joint Personnel Adjudication System (JPAS) or base records, which validate clearances for military and civilian employees?			
23	Do Security Managers have a master security clearance roster on hand for all program personnel and is the roster fully supported by source documents such as current visit request for contractor personnel and JPAS printouts or base rosters for assigned military and civilian personnel?			
24	Are Top Secret Initial Single Scope Background Investigation's and Periodic Reinvestigation's for Sensitive Compartmented Information access (For Military and Civilians) submitted through the National Assessment Group when required or at the 54-month point for PR's?			
25	Are Top Secret Initial Single Scope Background Investigation's and Periodic Reinvestigation's for collateral (NON-SCI) and access (For Military and Civilians) submitted through the local supporting personnel security agency when required or at the 54-month point for PR's?			
26	Are Top Secret Initial Single Scope Background Investigation's and Periodic Reinvestigation's for collateral (NON-SCI) and Sensitive Compartmented Information access (For DOD Contractors) submitted through the DOD contractor's Facility Security Office (FSO) when required or at the 54-month point for PR's?			
27	Are Secret Initial Investigation's and Secret Periodic Reinvestigation's for collateral access (For Military and Civilians) submitted through the local supporting personnel security agency when required or at the 114-month point for PR's?			
28	Are Secret Initial Investigation's and Secret Periodic Reinvestigation's for collateral access (For DOD contractors) submitted through the DOD contractor's Facility Security Office (FSO) when required or at the 114-month point for PR's?			

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**APPENDIX H-3 INDUSTRIAL SECURITY CHECKLIST**

<b>ALL PURPOSE CHECKLIST</b>		<b>PAGE 1 OF 1 PAGES</b>			
<b>TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA</b> INDUSTRIAL SECURITY CHECKLIST		<b>OPR</b> OSD/JT&E	<b>DATE</b>		
<b>NO</b>	<b>ITEM</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	
1	Does the program, if necessary, have a host-tenant agreement or MOA with the host that addresses support of the Industrial Security Program?				
2	Does the servicing Information Security Program Manager (host base or JT&E program office) review solicitation and contract documents to ensure appropriate security clauses and language are contained and that they address the protection of government information and sensitive resources?				
3	Does DD Forms 254 include program specific security classification guidance to include Sensitive Compartmented Information, OPSEC, and are the appropriate Security Classification Guides cited?				
4	Are DD Forms 254 reviewed and signed by both the JT&E office and the DOD contractor when prepared or at least biennially?				
5	Does Security Manager have a current copy of DD Forms 254 with all attachments for all supporting contracts, to include subcontractors and consultants?				
6	Are items checked on the DD Forms 254 addressed in program security training and are required briefings documented and signed by all required and filed by Security Manager (example NATO and CNWDI briefs)				
7	Does the program have procedures for processing incoming contractor visit requests (usually through Security Manager) and are records kept for at least 2 years. NOTE – computer databases may be used if backup copies are archived.				
8	Does the program have procedures for processing contractor visit request for non-United States personnel?				
9	Does the program have procedures in place for ensuring security violations involving contractors are reported to both the Security Manager and contractor lead POC as required?				
10	Does the program Security Manager have prime contractor and sub contractor files on-hand with necessary documents (DD Forms 254, attachments, visit request, courier authorization memos and/or letters)?				
11	Do contractor personnel complete required computer security training (SATE) prior to accessing DOD unclassified LANs?				
12	Does the program have visitor group security agreements (VGSA) with all contractor VGs with access to classified information that have been identified? (DOD 5220.22-R, Para 1-108e. NOTE: Army and Navy may not have VGSA's.				
13	Do Contractor personnel complete required Anti-Terrorism training and are results or certificates filed with program Security Manager?				
14	Are required contractor personnel security investigations to include PR's tracked by the program Security Manager through the submitting contractor FSO's?				

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**APPENDIX H-4 OPERATIONS SECURITY (OPSEC) CHECKLIST**

<b>ALL PURPOSE CHECKLIST</b>		<b>PAGE 1 OF 1 PAGES</b>			
<b>TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA</b> OPERATIONS SECURITY (OPSEC)		<b>OPR</b> OSD/JT&E	<b>DATE</b>		
<b>NO</b>	<b>ITEM</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	
1	Has the OPSEC Program Manager (PM) been appointed writing by the program director and his/her name been forwarded to the servicing DOD component OPSEC office?				
2	Has the OPSEC PM established a working group as a staff forum to address program local OPSEC policies, programs, and objectives? Does the group meet semi-annually or as required?				
3	Are visual aids identifying the OPSEC PM predominately displayed through out the organization?				
4	Has the OPSEC PM and or working group developed and coordinated a program director approved "critical information list".				
5	Has the OPSEC PM attended or is scheduled (training should be received within 90 days) to attend the OPSEC Fundamentals course. Example IOSS course 2380 (5 days).				
6	Are OPSEC visual aids displayed in common areas or on desktops to remind program personnel of OPSEC responsibilities?				
7	Has the OPSEC PM established a continuity folder? Are current editions of all instructions, pamphlets, and directives being maintained in support of the OPSEC program?				
8	Does the OPSEC PM maintain effective rapport with DOD Intelligence and counterintelligence agencies? How?				
9	Does the program director actively advocate, support, and implement OPSEC options in support of testing, technology, operational mission.				
10	Does PM review program OPSEC plan annually and update as threat conditions dictate?				
11	Does the OPSEC PM or non-partial party conduct annual self-inspections of the OPSEC program?				
12	Are the interrelationships of OPSEC, COMSEC, COMPUSEC, physical security, and information security programs clearly understood by the OPSEC PM?				
13	In the acquisition security and/or test arena, does the OPSEC PM work with acquisition and/or test personnel to ensure OPSEC "critical information" is identified.				
14	Have effective OPSEC countermeasures been developed to mitigate known indicators to the adversary?				

15	Is the OPSEC PM in concert with other planners, and with the assistance of intelligence and counterintelligence organizations, providing risk assessments and recommendations to program director, who ultimately must decide whether or not to employ OPSEC measures?			
16	Does program have destruction equipment on site such as strip or cross cut shredders, to destroy sensitive non-classified and privacy act material?			
17	Does PM check trash and recycle bins on a random basis for OPSEC sensitive materials?			
18	Does the OPSEC PM use the "Purple Dragon" icon for training purposes and to highlight program awareness initiatives?			
19	Does PM have on hand the IOSS training CD's for OPSEC courses (Free from <a href="http://www.IOSS.gov">www.IOSS.gov</a> ) and do they attend regional or national IOSS OPSEC seminars?			
20	Has PM attended a DICE counterintelligence briefing or arranged for program personnel to attend? Better yet, has PM offered to host a DICE briefing at program location?			



## **ANNEX I MODELING AND SIMULATION**

### **I.0 Introduction**

This annex discusses planning for the use of modeling and simulation (M&S) to support a joint test (JT). Operational and Service commands often face challenges that need an urgent, rapid resolution to improve operational effectiveness. The Joint Test and Evaluation (JT&E) Program's focus on non-system acquisition, places it in the forefront of developing intellectual test products to meet immediate warfighter needs to resolve operational issues. Example test products include joint and multi-Service tactics, techniques, and procedures (TTP) and technical recommendations on systems-of-systems performance in specific mission areas (like time-sensitive targeting). Creating a testing environment that fully supports a joint warfighting environment often requires using a joint training exercise supported by M&S. M&S provides a Joint Test Director (JTD) with the ability to use available Department of Defense (DOD) tools and technology to aid in planning their test events and collecting data for analysis.

M&S provides the JT with valuable information that can increase statistical confidence levels, decrease field test time and costs, and provide data for pre-test prediction and post-test validation. M&S serves to provide the JTD with a testing environment that reasonably approaches reality, but must thoroughly understand and carefully plan to take advantage of its benefits, such as cost avoidance, destructive testing, and overcoming safety constraints. The use of M&S can affect test cost performance and schedule. This annex discusses taking advantage of the benefits that M&S offers to increase the efficiency of the JT, reduce time and cost, and provide otherwise difficult to collect data. It also addresses considerations that may limit using M&S. To assist the JTD, M&S engineer, and operations analyst in developing an effective M&S plan, they should review the M&S training slides.

### **I.1 Description of Modeling and Simulation**

JTs can use two kinds of modeling to support its test regimen: systems architecture and conflict modeling and simulation. Systems architecture tools capable of static and dynamic process modeling can support Department of Defense Architecture Framework (DODAF) operational and system view production. The JT can use output of process modeling in conflict M&S to create scenarios that reflect the warfighter's operational environment. The JT should use M&S when appropriate, however, it is strongly recommended the JT conduct coordinated test event planning as M&S may not support developing the integrated data requirements list (IDRL) to the level of detail required in a detailed test plan (DTP).

#### **I.1.1 Systems Architecture Modeling**

When developing TTP, JTs should use a systems architecture modeling tools to model the operational and tactical processes. These tools can have a static process modeling capability or a dynamic process modeling capability that provides process flow characteristics over time. United States Joint Forces Command (USJFCOM) has a tool, the Joint Battle Management C2 (JBMC2) Capabilities Mapping Environment (JCME), which contains the attributes of a joint force that a JT can use to create static views. Dynamic modeling tools such as SIMPROCESS and TOPVIEW provide the means to observe and automatically calculate message and work, sometimes called client-server, queues (such as node blockage points, delay studies, etc), human task performance and related measures, and time cycle evaluations. These type of systems architecture modeling tools are analytical in nature and

do not require verification, validation, and accreditation (VV&A). JTs should exercise care in choosing between Government Off-the-Shelf Software (GOTS) or Commercial Off-the-Shelf Software (COTS) tools, as COTS will require some militarization.

### **I.1.2 Conflict Modeling and Simulation**

Combatant Commands (COCOMs) and Services routinely recreate operational conditions in training environments by using conflict M&S. Consequently, there is potential for a high degree of correlation and consistency for replicating a realistic operational environment when using the same kind of conflict simulation for a test event. Military exercise planners must evaluate M&S to determine acceptability and how closely it provides realistic stimuli to the operators. Exercises such as Terminal Fury, Unified Endeavor, and Ulchi Focus Lens use a number of different constructive and virtual simulations to stimulate the military participants to react to specific operational inputs generated by the simulators. In this case, the JT must determine if the exercise owner accredited the M&S for use in the exercise and if the JT used it for a similar purpose. If so, the JTD only needs to accredit the M&S as suiting the purpose of creating the realistic environment or of producing the appropriate stimuli. If not, the JTD must plan on conducting a VV&A process, guided by a VV&A plan, that leads to accreditation of the simulation environment before related data can be used to support JT requirements.

Users broadly characterize conflict M&S as live, virtual, and constructive depending on how they create the environment. Distributed simulations are normally a federation of live, virtual, and constructive environments used to create a multi-echelon joint capable training or exercise event. The principle characteristics for this construct is to link geographically separated organizations into a coherent federation to share in a common scenario using commercial and/or government owned networks. This annex principally focuses on application of distributed simulation to support JT requirements.

#### **I.1.2.1 Live Simulations**

Live simulations consist of real personnel using real equipment under actual conditions approaching real-life combat operations. For a JT, this would be a test event using actual weapon systems in realistic operational environments to collect test data using actual hardware, system of systems interaction and interoperability, and embedded system software through human performance. The Army's National Training Center is an example of a live simulation where instrumented combat systems and soldiers engage in a force-on-force training event.

#### **I.1.2.2 Virtual Simulations**

Virtual simulations consist of real personnel using simulated equipment in real time. In this instance, much of the actual hardware found in a weapon system or system of systems is used. It essentially immerses the operator in an environment that is mechanically similar to the weapon system that he normally operates. Pilots operating full motion aircraft simulators like those in the combat air forces (CAF) distributed mission operations (DMO) backbone are an example of this. The environment may simulate, physically or computationally, portions of the systems operating environment, including the threat. A capability of virtual systems is that they can be networked with

live or simulated systems to provide realistic operational stimuli to command and control (C2) nodes for operational or tactical decision makers. Most military training exercises have some virtual simulations in their scenario.

### **I.1.2.3 Constructive Simulations**

Constructive simulations consist of tools that construct the fight using mathematical representations of systems and organizations. Decision makers interacting with the simulation, in essence, mathematically “reconstruct” combat. Early in a weapon system’s life cycle, computer simulations provide the best system evaluation information. In many cases, constructive simulations can be readily modified existing simulations for similar systems. For example, engineers have effectively used AIM-9 missile simulations in developmental test and evaluation. Another application of constructive simulations is to provide realistic operational stimulation to staffs and organizations via C2 systems. A constructive simulation provides an output that stimulates a system operator by providing realistic information to their display that results in the execution of task (like generating a military units’ position update to the global command and control system (GCCS)). In this case, the constructive simulation stimulated the decision maker as he applied his understanding of doctrine and TTP. Again, most military training exercises use constructive simulations to stimulate operator actions when real systems cannot be present.

## **I.2 Validity of Models and Simulations**

M&S has the potential to reduce time, resources, and risk associated with executing a JT. However, realizing the full potential of M&S to support a JT requires a strategy for its use and careful management of the M&S activity. Simulations do not substitute for, but may enhance, testing. Computer programs may simulate many human activities; however, decision-making is not one of them unless based on a finite rule set. Careful selection and appropriate planning will produce representative and valid stimulation of decision-making required in developing TTP. The important element in using models and simulations is to select those that are representative of the environment required for the JT and are capable of modification to address the appropriate level of detail (issues, thresholds, and objectives). [See DOD Directive (DODD) 500.59].

### **I.2.1 Use of Existing Models and Simulations**

Whenever possible, the JTD should use existing models and simulations that have already undergone the VV&A process. These processes are detailed investigations into confirming that mathematical representations of the real systems they purport to represent are in fact true according to the system developer. The VV&A processes fall to the owner or developer of the M&S. An allegory is verification, validation, and certification (VV&C) for data. Again, the provider (simulation developer) of the data must V&V that the data as output is appropriate to the theoretical values and the certifier is the user of the data. When a JT chooses an existing M&S to support a test event, the JTD must certify it for use by the JT. The JTD is the Accreditation and Certification Agent for each test event utilizing existing M&S.

### **I.2.2 Use of Developed Models and Simulations**

When a JT determines that it must develop M&S or modify an existing M&S to suit its needs, both the VV&A and VV&C processes must be conducted by the JT. The VV&A process must confirm the mathematical representations of the real systems are in fact true according to the system developer (the JT). The VV&C process must ensure that the data as output is appropriate to the theoretical values according to the user of the data (the JT). The JTD is the accreditation and certification agent for each developed M&S. This option can add significant cost, project scheduling constraints, and personnel costs. The JT will potentially bear the burden of developing, validating, verifying, and certifying the M&S within the JT schedule, which is difficult to accomplish in only three-years.

### **I.3 M&S Planning Considerations**

M&S planning follows a typical systems engineering process; determine requirements, conduct detailed planning, be proactive in execution, and conduct assessment based on data collected. An example of planning an activity that uses M&S is the Joint Warfighting Center (JWFC) Exercise Handbook. It also provides insights into the joint exercise life cycle (JELC), the planning process that many M&S supported training exercises follow to plan their training events. Accordingly, as an example of simulations used in test planning, consider a model that portrays aircraft versus air defenses. The model can be used to replicate typical scenarios and provide data on the number of engagements, air defense systems involved, aircraft target types, length and quality of the engagement, and a rough approximation of the success of the mission (i.e., if the aircraft made it to the target). With such data available, the JT can develop a data collection plan to specify, in more detail, when and where to collect data, from which systems, and in what quantity. This can help identify long lead-time items such as instrumentation devices and data processing systems. The more specificity the data collection plan contains, the fewer the number of surprises that will occur downstream.

Planning for the use of M&S in a JT must include:

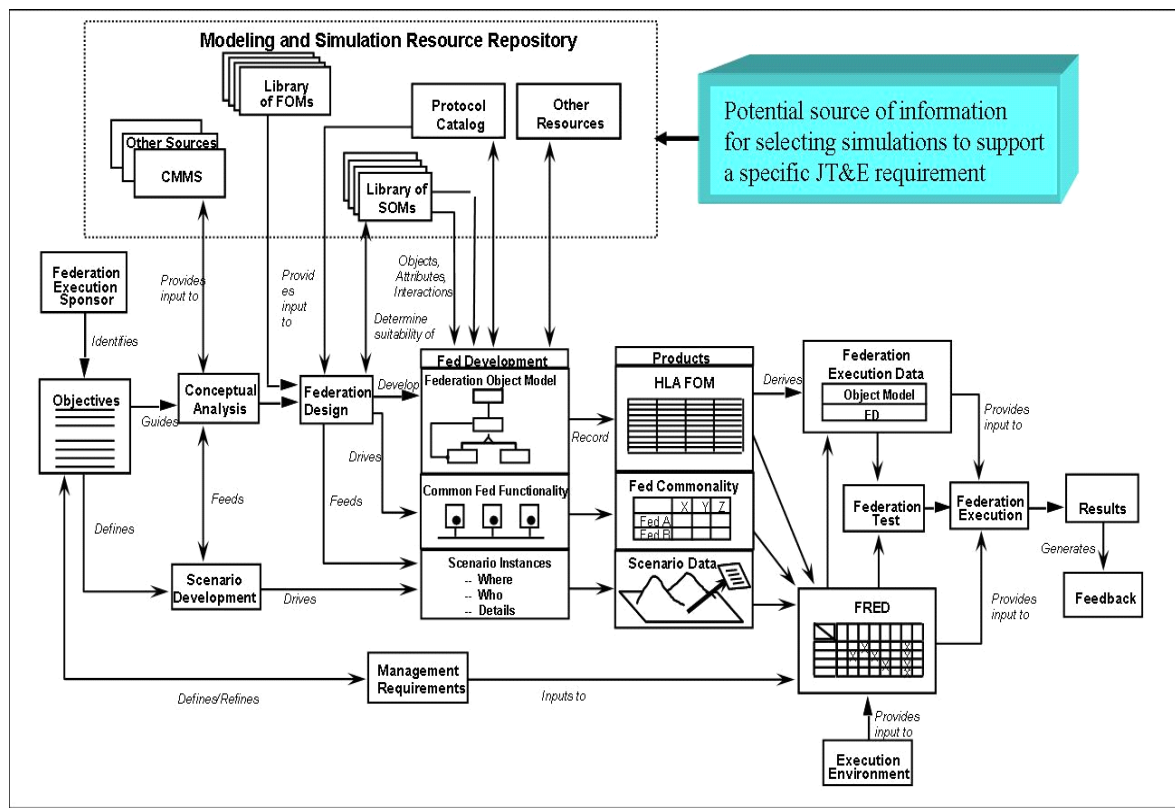
- The extent of modeling and simulation use in the JT; whether existing M&S will be adequate, modifications or integration will be required, or new M&S must be developed
- History of model and simulation VV&A to determine if the M&S were used for similar application requirements
- The validity of M&S-based data to augment test data
- An integration control document (ICD), sometimes called an interface control document, is required for each M&S federation created

A JT must conduct VV&A on models and simulations before they use them for either extrapolating or predicting performance of humans, TTP, hardware, software, and interoperability. This is required for the maintenance of analytical rigor in test data used by decision makers to effect changes to operational TTP, C2 architectures, or operational and tactical processes.

The use of M&S does not come without cost in terms of schedule impacts and dollars. Inherently, the addition of M&S to the JT introduces cost, schedule, and performance risk. M&S will always add cost to the JT, and usually the costs are up-front costs associated to integration of M&S systems to form a realistic operational environment. Large portions of these costs are

translated into facility reimbursement and man-hour costs associated to M&S integration and test execution. Modifications to, and integration of, M&S takes time, which influences the JT schedule.

The simulation environment is based on the methodical development of a simulation federation (group of individual models and simulations, each referred to as a federate). Performance of the M&S federation is a critical factor. Should the M&S federation not perform as expected, the JT, and resulting data, may be negatively impacted. A factor often overlooked is the requirement to develop an M&S architecture that includes all models and simulations used in the federation. The DOD Modeling and Simulation Coordination Office (MSCO), formerly the Defense Modeling and Simulation Office (DMSO), federation development and execution process (FEDEP) guides this (see Figure I-1). This process is used to determine which models and simulations are appropriate for intended JT application and provide a logical process for developing the simulation architecture to form the operational scenario that the simulation environment will emulate. This process is part of the conceptual analysis that leads to the design of the M&S federation.



**Figure I-1. Federation Development and Execution Process**

The M&S federation development team should develop the M&S federation architecture based on the object model process delineated in the MSCO high-level architecture (HLA) standards (IEEE 1516 series). Compliance of federation models and simulations with the distributed interactive simulation standard (IEEE 1278 series) will help minimize model and simulation integration. Part of the M&S federation architecture is the requirement to delineate the



simulation management component that will provide the means to coordinate and orchestrate all M&S activity during a simulation execution. This will also provide the instrumentation manager information that can facilitate the emplacement of in-line, software-based data loggers and data collection instrumentation hardware.

It is important to understand the risks of using M&S are closely associated with M&S management, from development to execution. Therefore, the JTD must establish risk management procedures such as periodic reviews of cost, schedule, and performance; VV&A review boards; and M&S federation integration review boards. Risk associated with having a particular model or simulation ready in time for a required program event increases with complexity. As the level of effort associated with the VV&A, M&S integration, or the configuration management plan increases, so does the risk of the M&S federation's capability to provide the required realistic operational environment in a timely and cost effective manner.

The JT must identify and justify the need for M&S to calculate the JT measures and answer the test issues. With the advent of HLA, the four Services, Joint Staff, and other DOD simulation owners are transitioning their simulations to be HLA compliant. Therefore, the JTD should consider the use of distributed simulation technology to generate representative, simulation-based test events. JTs should not use simulation data in lieu of field-testing. JTs should use simulation data to supplement live test data and to extend sample size requirements to increase statistical confidence of test results. However, the JT must clearly document and consider the limitations and constraints of the simulation environment in the data analysis and VV&A processes.

The VV&A plan must address the purpose for using M&S, M&S architecture, schedule for obtaining and integrating the M&S and its components (particularly for a distributed simulation), VV&A planning, cost and schedule, and delineated responsibilities of M&S participants. The JTD should treat the required simulations, VV&A, and supporting infrastructure as test resource requirements. To cost these items fully, the DTP developers must coordinate with the simulation facilities and obtain a current, "hard" estimate of costs, particularly M&S integration costs. If planned properly, the use of simulation can prove to be a cost-effective resource to plan and execute a future JT or to extend our knowledge of test results. In cases where field tests are not possible, but validated simulations exist that can generate relevant data, the test analyst can plan for the use of M&S to obtain a "statistical inference" concerning a capability. This may not fully equate to a realistic environment, but can provide useful, accredited data the JT can use with other data in answering test issues.

#### **I.4 M&S Limitations**

The JTD must consider the following possible M&S limitations when contemplating the use of M&S in a JT:

- M&S does not equal real world
- Non-real time execution of M&S-based operator tasks resulting in varying levels of artificiality in simulation-based data
- Simulation federations require proper planning
- M&S federations require extensive integration that ensures interoperability and consistency between other M&S operating in the federation

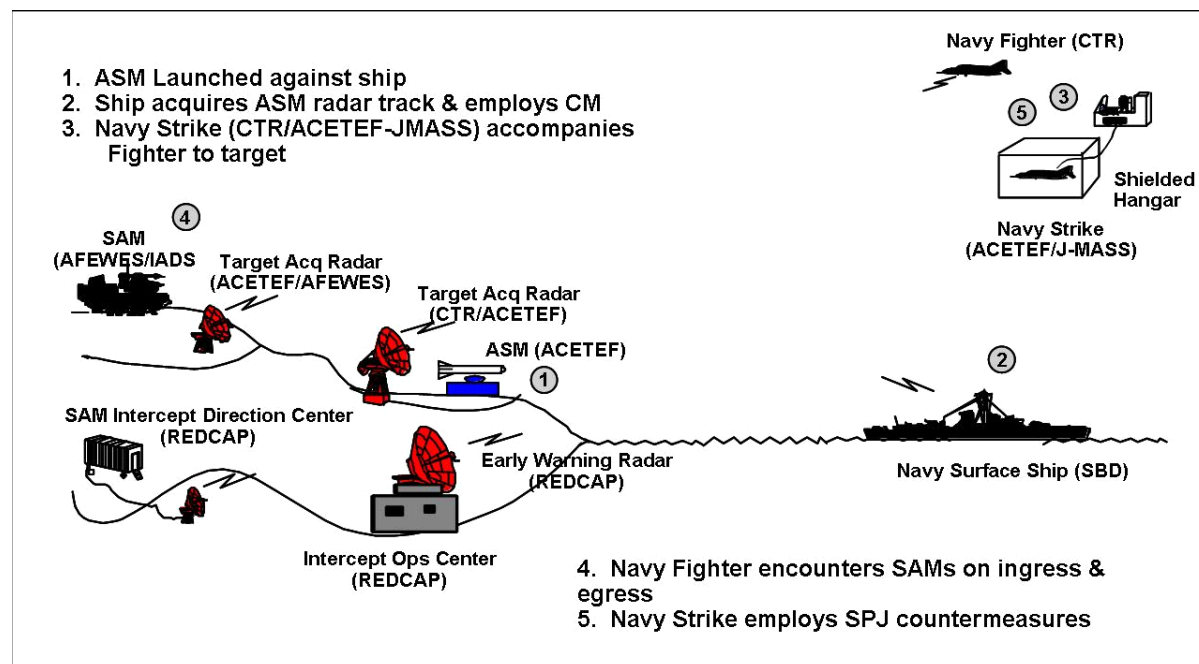
- Use of M&S is potentially high cost in both schedule and dollars
- VV&A for M&S and verification, validation, and certification for data could be extensive

## I.5 Building an M&S Federation

The PTP and DTPs must contain a VV&A Plan that includes the application of M&S that generate data used in the test findings. To accomplish this task, the JT must follow steps to ensure the M&S environment, distributed or non-distributed, results in the most effective and efficient simulation capability possible. The FEDEP guides this process.

Step 1. Determine what operational shortfall(s) that the intended M&S application environment is to resolve. For example, the JT will be unable to obtain a sufficient number of real combat systems to determine the utility of a specific set of JT-developed TTP changes with real operators in the loop.

Step 2. Determine what real-world objects need to be modeled and/or simulated. To do this, start by drawing an operational picture on a whiteboard to illustrate all M&S objects (type of aircraft, tanks, trucks, C2 systems, etc.) that will interact in the simulated operational environment (see Figure I-2). This critical step must be executed very carefully. The JT should use three or four different candidate operational scenarios to explore fully what M&S objects are required in the simulation execution.

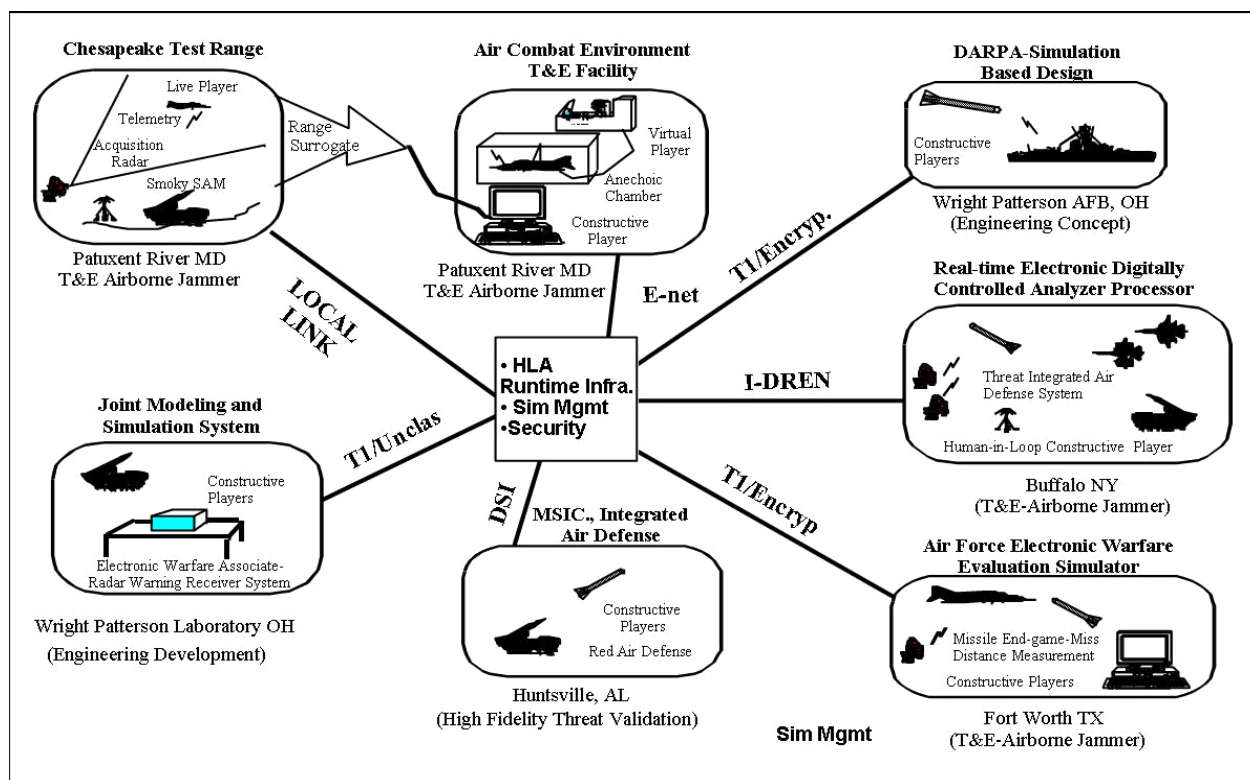


**Figure I-2. Operational Scenario Picture Example**

Step 3. Develop the object model template. This provides the M&S engineer an explicit list of the objects that candidate simulations must possess. The high-level architecture standard provides the required information on how to perform this crucial step.

Step 4. Determine what models and simulations are available within the Services and other DOD and non-DOD organizations that result in the highest simulation fidelity possible. The JT can access the Services and MSCO modeling and simulation resource repositories (MSRR).

Step 5. Develop the M&S architecture that will provide the structure for linking and integrating the models and simulations to form the required simulation environment (see Figure I-3). This step includes M&S data format and structure characteristics that facilitate integration of the models and simulations. Those M&S that are in compliant with an established standard such as IEEE 1278 and the high-level architecture IEEE 1516 are much easier to integrate than those not based on any type of protocol standard. Do not forget to consider the simulation management and data collection requirements. Simulation management addresses those functions performed by the simulation execution team that ensures consistent simulation interoperability, troubleshooting (simulation and communications failures), and rapid resolution of problems.



**Figure I-3. M&S Architecture Example**

Step 6. Identify the capable M&S facilities, obtain cost estimates, determine schedule availability, and obtain letters of agreement that ensures that the M&S will be available for integration at the time required. Many simulation capable test and training facilities are often booked for as much as 18 months prior to simulation execution activities. Consideration for time slots during simulation integration activities is necessary to ensure sufficient opportunity to test and check the interoperability and interactivity of linked, distributed simulations. Be aware that most M&S cost estimates can be off by 75 percent of the actual cost. This is usually due to



inadequate description of the M&S integration work and possible requirements modify one or more models and simulations.

Step 7. Develop M&S schedule and funding requirements. This will include the development and publishing of an M&S ICD, integration team meetings with representatives from each organization participating, installation or integration with communications sources, scheduled integration testing, facility availability scheduling, and number of personnel required to integrate the M&S into a single simulation environment.

Step 8. Develop a VV&A plan. In most test and evaluation applications, the level of VV&A normally focuses on validation processes that include operationally representative warfighter operators. The VV&A must principally focus on the overall M&S federation from a stimulus input and process output perspective. When selecting models and simulations, the M&S Engineer must consider the VV&A history of each. The JT team must develop high quality and human factors focused evaluation methods and questionnaires that provide representative data for the JTD to make a rational decision to accredit, or not accredit, a simulation environment. The JTD must be thoroughly convinced the M&S environment represents the real-world operational environment to an extent deemed satisfactory for the collection and application of data that answers the test issues and resolves the JT problem. The JTD must avoid the tendency to accredit a simulation due to amount of effort applied or the short amount of time remaining in the test schedule. A poorly formed simulation federation environment results in incomplete or incorrect data that can lead to inaccurate or wrong JT findings and conclusions.

## **I.6 Potential M&S Problems**

The below is a list of possible problems that may prevent the efficient use of M&S in a JT. Each result in different levels of potential risk the M&S Engineer and the JTD must consider.

- Starting the VV&A plan too late and the lack of sufficient detail in the plan affects the timely integration and executability of simulation environment.
- Scheduling of communications networks, facility and computer resources, and systems operators can be very involved and time consuming. Each may require several months of lead-time to coordinate.
- Interface with live players in a high fidelity simulation environment may be very elusive due to difficulty to synchronize the interactions between constructive and virtual simulations with live systems and operators.
- Latency associated to real-world system processors and pulse-to-pulse sensor interactions can be a problem requiring mitigation techniques e.g. difference between computer processor speeds for two or more simulation systems can result in time synchronization problems that invalidate the simulation environment. Mitigation could be to upgrade all computer processors to reduce the effect of time latency problems across the processors. Human interactions are not a significant problem since humans operate at a much slower speed than data transferred between systems; however, simulation fidelity is likely to be an issue. Fidelity problems are minimized if the operator receives simulation data as a single string stimulus that does not result in an operator response to the stimuli source.
- The JT team lacks the expertise of a well-trained and experienced M&S engineer. This results in false starts, numerous trips down the wrong simulation development path, and significant waste of dollars and time. Solution is to hire a qualified M&S engineer as soon as

the JT is chartered, who is familiar with the development of distributed simulation environments and the process for developing the ICD that leads to an effective and efficient simulation execution.

- The inability to cost accurate simulation requirements. This is often due to the lack of expertise or inadequate development of the M&S architecture that leads to the clear definition of the simulation environment and the man hours required to create that environment.
- VV&A plan execution does not have to be overly complicated. The JT must use non-biased operator personnel to validate the M&S systems.
- Classified data exchanged between M&S federates can be a potential security problem. The JT must take care to ensure that any mitigation applied does not affect quality of the test data generated during the simulation execution.
- Control of distributed M&S may be difficult, but may not be any more difficult than conducting a distributed field test event. Effective mitigation is thorough preplanning and rehearsals.
- Reliability of the communications infrastructure that supports distributed and non-distributed simulation requirements may be a problem. There are technical techniques that can minimize this potential such as automatic rerouting and switching capabilities invoked whenever a communications link is broken.
- Variation of simulation fidelity due to maturing simulation technology. Whenever an operational system is simulated, the version of the software and model of the system the simulation represents must be considered against fielded systems. Data collected from a simulated system that is operating using older embedded software will yield potentially different test data than that operating on current fielded software.
- Where terrain is a factor, a dynamic terrain database can have disconnects when the M&S engineer attempts to match the simulated terrain database with real-world terrain e.g. the simulation results in a percentage of trees in a simulated environment being destroyed; however, all the trees remain in the real-world environment.
- Trying to make available M&S fit a unique test, training, or experimentation requirement.
- Unrealistic simulation integration schedule and the lack of continuous coordination with all participants in developing the simulation environment. This can be minimized by frequent M&S planning meetings and assignment of action items with associated completion due dates.

## **I.7 Summary**

A JT can use modeling and simulation for test concept evaluation, data analysis extrapolation, isolation of test design effects, representation of complex operational environments, and overcoming inherent limitations in testing. The use of M&S can help validation of test findings and conclusions, increase confidence levels, and may reduce overall test costs. However, it may take time and extensive funding to build the M&S federation to the point that it is not useful for test purposes.

## **ANNEX J REFERENCES**

### **AFOTEC Instruction 99-103 (November 1, 2005)**

This instruction provides guidelines and procedures for the AFOTEC conduct of OT&E on USAF systems. The instruction contains guidance relative to resource planning and funding of Joint Test and Evaluations.

### **AFOTEC Pamphlet 99-103 (May 20, 2004)**

This pamphlet is a guide for resource managers and test managers on procedures for preparing the Test Resource Plan (TRP).

### **Air Force Instruction 99-106 (July 11, 2001)**

This instruction contains guidance used in the management of USAF participation in OSD-funded JT&E.

### **Army Regulation 73-1 (August 1, 2006)**

This publication outlines oversight and JT&E program management responsibilities for Army organizations.

### **DA Pamphlet 73-1 (May 30, 2003)**

This publication outlines oversight and JT&E program management responsibilities for Army organizations.

### **DIA Regulation 55-3**

This regulation is a guide for obtaining threat information support.

### **DOD Instruction 5000.61 (May 13, 2003)**

This guide provides policy, assigns responsibility, and prescribes procedures for VV&A of DOD M&S.

### **DOD Directive 3200.11-D (May 1, 2003)**

This directive is a summary of Major Range and Test Facility capabilities.

### **DOD Directive 3200.12 (February 11, 1998)**

This directive outlines the mission, responsibilities and functions of the Defense Technical Information Center (DTIC). Copies of all approved JT&E Test Reports and Test Plans must be forwarded to DTIC.

### **DOD Directive 4120.14 (April 24, 1996)**

This directive establishes guidelines relative to Environmental Concerns for DOD programs.

### **DOD Directive 5010.41 (September 12, 2005)**

This directive provides a description of the joint test and evaluation nomination and selection process and describes the organizational framework within each Service that supports the program and identifies principal participants and their respective responsibilities.

**DOD Directive 5230.24 (March 18, 1987)**

This directive establishes the requirement for all managers of technical programs to assign distribution statements to technical documents generated within their program.

**DOD Directive 6050.1 (July 30, 1979)**

This directive is a list of activities that have previously been found to have no detrimental effects on the environment and do not require an EA or EIS.

**DOD Manual 5220.22-M (February 28, 2006)**

This manual provides detailed information relative to the Government Information Security Program for safeguarding classified information.

**DOD Manual 7110.1-M1**

This manual outlines the procedures for the distribution and use of OSD funds in support of OSD sponsored or supported projects.

**DOD Regulation 5200.1-R (December 13, 1996)**

This regulation establishes requirements relative to the government information security program.

## **ANNEX K JOINT TEST AND EVALUATION PROGRAM OUTREACH**

### **K.0 Introduction**

The goal of the Joint Test and Evaluation (JT&E) Program outreach effort is to make the warfighting community more aware of the JT&E Program, the JT&E process, and the services and resources it can provide to help solve joint operational problems. In particular, the outreach program can make warfighters aware of the JT&E program's development of joint tactics, techniques and procedures (TTP), and products that help mitigate joint problems. It is through a multifaceted outreach effort that we educate warfighters on the JT&E processes that help the Services quickly meet emerging challenges.

### **K.1 Joint Test and Evaluation Program Office Outreach**

The JT&E Program Office (JPO) Outreach Coordinator conducts an aggressive outreach effort to inform and educate both military Services and government organizations on the products and services the JT&E Program provides. In addition, the JT&E Program outreach efforts provide visibility to ongoing JT&E projects and a venue to highlight test products for the warfighters. Outreach efforts by the JPO encompass the following:

- Development of articles and news releases for national and/or international publication
- Participation in conferences and symposia, presentations, workshops, and/or panels
- Development and publication of the JT&E Highlights Report
- JT&E input to Director, Operational Test and Evaluation (DOT&E) Annual Report to Congress
- Development of program graphics and/or illustrations that includes brochures, displays, and printed materials
- Hosting and maintenance of the JT&E website and intranet
- Development of JT&E Program tri-folds, fact sheets, and handouts
- Collection and consolidation of test program tri-folds, handouts, and test products
- Maintenance and scheduling of the JT&E exhibit booth

In addition, JPO conducts an internal communications effort that includes newsletters, an intranet site, and graphics for use by JT&E projects. Individual JT&E projects are encouraged to develop and maintain an outreach effort at their level, which can incorporate methods similar to those used by the JPO. However, if not in the JT&E project's original consolidated resource estimate (CRE), the JT&E project director should develop an outreach plan to support personnel attending outreach events, and other services and/or materials needed to conduct the outreach effort. The JT&E Program Manager (PM) will review and approve JT&E project outreach plans. JT&E projects should target conferences directly related to its test and test product communities.

The JPO maintains and schedules the use of an expandable, full-size exhibit booth. Individual JT&E projects may use the exhibit booth for conferences, when available, and with prior coordination with the JPO Outreach Coordinator. Should an individual JT&E project want to purchase their own exhibit booth or other related outreach products, they must get prior approval from the JT&E PM.

The JPO Outreach Coordinator will conduct regular research to identify conferences that provide the best opportunities to inform the Combatant Commands (COCOMs) and warfighting



communities of the benefits of the JT&E program. The JPO presently attends, on a regular basis, the following conferences:

- International Test and Evaluation Association (ITEA) ([www.itea.org](http://www.itea.org))
- Army Developmental Test Command (DTC) ([www.dtc.army.mil](http://www.dtc.army.mil))
- Association of the United States Army (AUSA) ([www.ausa.org](http://www.ausa.org))
- Navy League ([www.navyleague.org](http://www.navyleague.org))
- Air Force Association (AFA) ([www.afa.org](http://www.afa.org))

When the JPO attends a conference, and if a JT&E project plans to attend the same event, then JPO will take the lead to coordinate attendance of personnel to support the exhibit booth (see Figure K-1). JT&E projects should then provide a list of personnel they have selected to attend to the JPO Outreach Coordinator for approval. Note: the Outreach Coordinator may need to limit the number of persons attending to avoid “over-manning” the booth. JT&E project personnel selected to attend the conference should bring with them an ample supply of their JT&E project’s handout materials such as tri-folds, fact sheets, or brochures. Examples of outreach materials are available from the Outreach Coordinator.



**Figure K-1. JT&E Program Office Exhibit Booth**

A JT&E project should use the following guidelines when they want to use the JT&E exhibit booth at a conference or symposium:

- The user(s) must first send a representative (if feasible) to the JPO to review setup, tear-down, packing and shipping requirements. Scheduling of this meeting should be after prior scheduling of the booth has been coordinated with the JPO Outreach Coordinator.
- Once the exhibit is setup at the conference, the exhibit booth should highlight the JT&E Program as a whole, as well as the individual project using the booth.

- The JPO will provide any available giveaway items for use at the conference (packed with the booth).
- The JT&E exhibit booth will be shipped back to the JPO at the completion of the conference and any problems encountered (equipment breakdowns, and so forth) should be reported to the Outreach Coordinator.
- Detailed setup and conference instructions are sent with the exhibit booth or you can request a copy from the Outreach Coordinator

If a JT&E project decides to participate in conferences and symposiums, they should staff the exhibit booth with military personnel in uniform if possible. Military members, in uniform, representing the JT&E Program provide additional visibility to the Services and relate test products directly to warfighters.

The JPO will post conference and symposia event schedules on the JT&E intranet and include upcoming events in JT&E newsletters. JT&E project directors are encouraged to support upcoming events and review the conference and/or symposia list, and if an opportunity to participate presents itself, contact the JPO. Points of contact in the JPO for additional information on outreach products and/or conference and symposia schedules are:  
Korey Marable (Outreach Coordinator) (703-681-5497, [korey.marable@osd.mil](mailto:korey.marable@osd.mil))  
John Padukiewicz (Outreach Support) (240-237-4739, [jpadukiewicz@dcscorp.com](mailto:jpadukiewicz@dcscorp.com))

The OC is the main point of contact for questions concerning outreach efforts to include the use and scheduling of the JT&E exhibit booth. JT&E projects can use the checklist included in appendix K-1 as a guide for determining the scope of their outreach effort. It is not all-inclusive. Individual JT&E project directors must determine their project's final outreach effort.

## **K.2 Joint Feasibility Study Outreach Support**

A joint feasibility study (JFS) is strongly discouraged from creating any kind of outreach products because a proposed joint test (JT) may be refocused before it is chartered, making the products unusable. If a JFS does decide to release any sort of product, the JPO must approve it before release without exception.

Each JFS may be required to write an initial press release regarding the inception of the proposed JT, any other subject-related events of interest to the testing community, as well as events of interest to the military community as a whole. Occasionally, the JPO will also require the JFS to produce written materials for publications or news sources, although this will happen more often as a JT. The JFS team should comply with all requests for written material within the timeframe required.

## **K.3 Joint Test Outreach Support**

While each JT can use their discretion regarding the degree to which they perform outreach and what type of outreach materials produced, there are a few required by the JPO:

- JT Logo. If not created during the JFS, the JT must design a logo within the first 30 days of charter. This logo can be comprised of anything the JT team feels is a good visual representation of the test, but it must contain "JT" or "Joint Test". The JT&E PM must

approve this logo before reproduction and use. The JT&E-Suffolk graphic artist can provide assistance as needed.

- JT tri-fold. The JT must complete a tri-fold within 60 days of charter. The tri-fold should have the JT logo and contain general information about the project. The JPO requires 500 brochures for distribution at conferences and the JTD determines any remaining requirements. The JT&E PM must approve the tri-fold before printing occurs.
- JT website. The JT must have a website within 90 days of charter. The sponsor facility or JT&E-Suffolk can host this website. The JT&E-Suffolk facility will work with the JT to ensure the information on the website adheres to operational security (OPSEC) rules. The website does not need JT&E PM approval before going online; the content is subject to review and approval.

### **K.3.1 Outreach Materials**

The JT&E PM must approve all outreach materials before release. This is especially true in the case of written materials, which may have political ramifications that only the JPO can monitor. Each JT is encouraged to write articles and press releases regarding events of interest to the T&E community, as well as to the military community as a whole. The JT can release this information themselves, as long as officially cleared for public release and they provide a copy to the JPO publication. Occasionally, the JPO will require the test to produce written materials for publications or news sources. The test project team should also comply with all requests for written material within the timeframe required. The following is a list of a few times when inputs are required:

- Poster. Within 30 days of charter, the test team will provide a 2-3 sentence synopsis of their test and 1-4 photos that are pertinent to the test. The JPO will use this information to create a poster for display with the JPO exhibit booth. The JT&E-Suffolk graphics staff can provide assistance as needed.
- Quarterly Newsletter. The JPO produces a quarterly newsletter. Submissions are encouraged in subject areas from test success stories, to promotions and awards, to conference attendance. The JPO will send out a notice one month in advance of publishing the newsletter.
- Quarterly Highlights. The JPO produces a quarterly highlight report and sends it to Department of Defense (DOD) agency representatives. Submissions are required from each test project regarding technical progress and success stories. The JPO will send out a notice one month in advance.
- DOT&E Annual Report to Congress. The JPO submits input to DOT&E's Annual Report in the late summer to early fall timeframe. Subject matter for each JT includes the problem statement, test events performed in that fiscal year, and benefits to the warfighter. The JPO will send out a notice one and a half months in advance.
- Reverse Snowflakes. When something of extreme interest occurs in the test project, the JPO may choose to send a memo to the Secretary of Defense highlighting a finding, product, or other success story. When the test receives the request for information, there should be a sense of urgency regarding delivery of the initial information requested. In addition, if the test feels that they have achieved something worthy of the Secretary's singular attention, they should contact their action officer (AO) or the JT&E PM to notify them that a reverse snowflake may be appropriate.



**K.3.2 Participation in Conferences**

The JPO participates in approximately ten conferences per year. Usually, there is at least one representative from the JPO at the JT&E exhibit booth. Often, the JPO will invite military JT&E project members to travel to the conference to assist the JPO in representing the JT. If the JPO asks a JT&E project team to participate in a conference and they agree to send a member, that JT is bound to do so. If they cannot do so, they must tell the JPO in a timely fashion, so they can find a suitable replacement.

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## APPENDIX K-1 OUTREACH CHECKLIST

JT&E projects should use the following checklist as a guide for determining the scope of their outreach effort. It is not all-inclusive. Individual JT&E project directors must determine their project's final outreach effort.

1. Determine your objective(s) for the outreach effort
  - a. Who is your target audience? (warfighters, COCOMs, Services)
  - b. What message are you trying to get out? (your products, benefits to the warfighters)
  - c. Are outreach objectives consistent with overall JT&E Program Office objectives of highlighting JT&E services and educating the warfighting community and COCOMs?
  - d. What level of effort does the JT&E project need to devote to outreach? (conferences and symposium participation (exhibiting and/or participation), brochures, tri-folds, fact sheets, graphic displays, written articles for publication)
  
2. Outreach Logistics – Exhibit Booth (applies to usage of the JT&E exhibit booth or individual JT&E project owned booth). Should your outreach effort include securing an exhibit booth to participate in conferences or symposiums, ensure to consider the following:
  - a. All fees associated with securing and operating the exhibit (includes fees for booth space registration, personnel registration, booth services (electricity, furniture, and so forth).
  - b. Logistics fees include shipping of the exhibit booth (both ways) to the conference location, airfare, and lodging for personnel staffing the booth and other travel related expenses (remember, the further away the conference, the more expensive it is). JT&E projects should consider participation in local conferences that meet your objectives, as this will reduce logistics costs.
  - c. JT&E projects should take into account scheduling considerations for participation in conferences because some conferences require early (up to six months or more) registration and payment. In addition, consider shipping of the exhibit booth from its storage location to and from the conference location to meet conference exhibitor setup and breakdown schedules.
  - d. Ensure that any personnel attending a conference also have sufficient quantities of their test project's give-away materials (brochures, tri-folds, fact sheets, program graphics or posters, and so forth).

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## **ANNEX L OUTLINES FOR JT&E PROJECT NOMINATIONS AND JOINT FEASIBILITY STUDY WRITTEN DELIVERABLES**

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## **APPENDIX L-1 JT&E PROJECT NOMINATION OUTLINE**

This is a format for submission of JT&E project nominations to the JT&E Program Office (JPO). This format is designed to help determine the viability of JT&E project nominations and should be followed for nomination briefings to the Planning Committee (PC) and Senior Advisory Council (SAC). Written nominations must be updated and forwarded to the JPO every time briefings are updated. If classified information must be used for key information in the nomination or briefing, note that there is a classified annex/slide in the unclassified nomination and forward classified information via appropriate means. Please use page number recommendations to keep the nomination succinct. The intent is to not duplicate information among the sections. For QRTs, in addition to the submitting organization, the nomination package will include a flag officer-level signature from a COCOM or Joint Staff, or a letter signed by two or more Service flag officers.

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## **JT&E PROJECT NOMINATION**

### **Project Name**

#### **1. Title (Cover Sheet – One Page)**

- a. Include the program name and acronym and indicate the organizations of the sponsors.
- b. Identify the point of contact including organization, e-mail address, and phone number.

#### **2. Proposed Problem Statement (One Paragraph)**

The proposed problem statement is a one or two-sentence statement that tells what problem the Joint Test (JT) or Quick Reaction Test (QRT) proposes to solve.

#### **3. Problem Background and Explanation (Five Pages or Less)**

- a. Indicate nature and origin of the problem (include examples of missions and scenarios that demonstrate the need.)
- b. Specifically, address what the user cannot do now or what inhibits the user from accomplishing the mission. Specifically identify the extent and impact of the problem.
- c. Identify the user who has the problem.
- d. Identify the organization who says this is a problem.
- e. Discuss why this is a joint problem (reference applicable Universal Joint Task List [UJTL] tasks, and/or published doctrine, and tactics, techniques, and procedures [TTP] where applicable.)
- f. Indicate if the JT or QRT will solve the total problem or only a subset of the problem (test scope and focus).

#### **4. Purpose of the Proposed Test (Three Pages or Less)**

There should be direct, evident traceability between the purpose and the problem statement.

- a. Explicitly state the purpose or purposes of the proposed project.
- b. Explain expected results and products of the proposed project.
- c. Identify expected benefit to the joint warfighter customer. Address the improved operational capability expected because of the project and the organizations expected to benefit from the project.

#### **5. Related Efforts (Two Pages or Less)**

- a. Address any other organizations doing related efforts (include any relevance to, and synergy with, other JTs or QRTs), if none then so state.
- b. Address how the proposed joint test is not duplicative of any other efforts, if not then so state.

#### **6. Joint Feasibility Study (JFS) or QRT Logistics (One Page)**

Given the short timeline for completing a JFS or QRT, the team needs to be ready to start work once directed or chartered. Therefore, the nomination package should identify the resources needed to conduct the JFS or QRT.

- a. Identify the proposed JFS Director or QRT Director with appropriate contact information.
- b. Identify where the JFS or QRT project will be located. If nominating a JFS, also identify where the JT would be located upon charter.
- c. Identify what resources are required to execute the JFS or QRT project (include a cost estimate that covers items such as travel, supplies, etc.).

## **7. Sponsorship and Endorsements**

Nominations need a resource sponsor and an operational endorsing organization(s) or agency.

- a. Identification of sponsoring organization should occur in the title section above. Include a copy of the sponsorship<sup>1</sup> letter as an attachment to the nomination.
- b. Operational endorsement(s) is required of all nominations. Include copy of operational endorsement<sup>2</sup> letter as an attachment to the nomination.

Submit to: JT&E Program Office  
4850 Mark Center Drive, 10<sup>th</sup> Floor  
Alexandria, VA 22311  
E-mail: [jpo@jte.osd.mil](mailto:jpo@jte.osd.mil)

---

<sup>1</sup> Resource sponsorship commits an organization to provide necessary O&M support (e.g., operational, administrative, government civilian salary, and infrastructure expenses).

<sup>2</sup> Operational endorsement commits an organization to provide necessary subject matter expertise support (e.g., personnel who can attend one to two day Joint Warfighter Advisory Groups). Operational endorsement also indicates a willingness to support the operations of a subsequently-chartered Joint Test or QRT.

## **APPENDIX L-2 PROGRAM TEST PLAN AND CONSOLIDATED RESOURCE ESTIMATE OUTLINE**

This outline provides the minimum necessary information for a program test plan (PTP) and consolidated resource estimate. Additional information can be added as required; however, the author is cautioned not to make the document more complex than necessary. Number of pages for each chapter is notional only. Recommend try and stay within that number; however, you may need to exceed it based on the number of figures, tables, and amount of written text. Where possible, use figures and tables to illustrate your test execution intent and use short discussions to explain them. Ensure that the document is clear, concise, and makes your intended point in layman's terms. Do not assume that your reader will understand the problem that you are addressing. Suggest you select someone not familiar with the information and ask them to read it and provide feedback if they do not understand everything discussed as part of the final editing of the document. Follow the JT&E Style Guide to prevent rework e.g., 2 spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to Military Services, etc. The significant majority of the detailed test planning information will be contained in each applicable Detailed Test Plan that will be developed for each separate, planned test event. As such, be cautious to retain the detailed information that was used to write this PTP, but not used in it, for subsequent incorporation into the applicable detailed test plans.

## **Program Test Plan (PTP)/Consolidated Resource Estimate (CRE) Development Guidance**

The following guidance is provided to assist in using this template to develop a JT PTP. (Do not include this page in the PTP/CRE.)

1. This shell contains information that must be tailored to your specific JT. This information is provided for sample only and, depending upon your JT, may or may not be applicable. Read each section carefully and modify as necessary to fit your JT.
2. Content instructional statements appear as highlighted text in parentheses. Do not include these statements in the actual PTP/CRE.
3. Non-highlighted text, figures, tables, and so forth are to be considered material that must be included in some form in all PTP/CREs.
4. The major paragraphs (first, second, and, in some instances, third level) in this template should be included in the PTP/CRE, if applicable. The sub-paragraph headings are provided as examples and guidelines only. That is, use only those provided sub-paragraph headings that apply, and include others as required.
5. Refer to the latest version of the JT&E Style Guide for formatting and grammatical instructions.
6. The footers for this outline are formatted for inclusion as an Appendix of the JT&E Program Handbook. Modify all footers to fit each JT when using the outline to develop a PTP/CRE IAW the guidance provided in the JT&E Style Guide.



**JT TITLE**  
**(XXXX) Joint Test**

**PROGRAM TEST PLAN**

**Month Year**



Submitted By: First MI. Last, Rank, Service  
Joint Test Director, Project Abbreviation

Signature

Approved By:

M.D. Crisp  
Deputy Director  
Air Warfare  
DOT&E

Christopher DiPetto  
Deputy Director  
Developmental Test and Evaluation  
OUSD(AT&L)A&T/SSE

Signature

Signature

DISTRIBUTION STATEMENT: Distribution limited to U.S. Government agencies and their supporting contractors. Other requests for this document shall be referred to DOT&E-JT&E title and address. (Determine any distribution restrictions and provide that information in this box.)

## DTIC FORM

Be sure to complete the Defense Technical Information Center (DTIC) form (next page) and submit a copy of the final document to the DTIC. The DTIC is a repository for all official Department of Defense documents that include test plans and test reports. Personnel and organizations that have access to the DTIC archives can perform a word search, which is executed against the DTIC form abstracts that are resident in the DTIC database. This provides the means for others performing research to quickly identify and request copies from the DTIC library. The JT&E Librarian can assist in guiding JTs to the subject form.

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## EXECUTIVE SUMMARY

### ES.0 Background

(Brief overview that highlights that the program is under the auspices of OSD, DOT&E and that the Services and joint community have agreed that the test is necessary. Identify lead Service(s) and provide brief description of the operational capability impacted by the problem that will be addressed by the JT.)

### ES.1 Purpose, Problem, and Issues

(Briefly state objectives of the JT, state the operational problem, and list the principal test issues. Provide clarifying comments as necessary. Introduce the problem statement.)

*Enter the exact, agreed-upon problem statement here (left justified and indented at left and at right).*

Paragraph to introduce test issues.

**Table ES-1. Test Issues**

Issue	Description
1	Measurable question the joint community wants answered
2	Measurable question the joint community wants answered

### ES.2 Test Concept

(Describe the test concept to include the specifics of what test articles will be tested, how they will be tested and evaluated, who will be involved in testing them, where the test events will be executed, and when the test events will occur. Figure ES-1 should be consistent with the Test Concept slide in the TAB II briefing and in accordance with TAB guidance and PTP chapter 2.)

**Figure ES-1. Test Concept**

### ES.3 Test Schedule

(Provide a short discussion that results in a statement that contains the major test activities and report milestones using the timeline from charter to closedown [for example, test events, expected key report dates, and GOSC and JWAG meeting dates]. Figure ES-2 should be consistent with the Test Schedule slide in the TAB II briefing and in accordance with TAB guidance and PTP chapter 1.)

### Figure ES-2. Test Schedule

#### ES.4 Test Products

(Provide a list of all expected test products (interim and final) that will result in improved operational capability directly due to the described JT, and indicate organization(s) that would be likely to own the products. Provide comments on how these products affect warfighter capability in current and future operations. Suggest bullet or table form, depending on number of columns. Concentrate on actual test products (test articles) produced as a direct result of testing.)

**Table ES-1. Test Products and Associated Owners**

Product	Owner

#### ES.5 Assumptions, Constraints, and Limitations

(Identify any assumptions made to enable testing, how the JT intends to validate these assumptions, and how non-validation could impact the JT's ability to test as planned. Also list any test constraints or limitations that are expected to impact the JT's ability to plan and execute planned tests and how these will be mitigated to minimize their impact on test findings, conclusions, and recommendations.)

**Table ES-3. Test Limitations and Constraints**

Limitations and Constraints	Mitigations

## **ES.6 Test Organization**

(Identify the Services and joint community members that will be participating as members of the JT staff. Figure ES-4 should be in accordance with chapter 6.)

### **Figure ES-4. Test Organization**

## **ES.7 Summary**

(Summarize the purpose, objectives, and expected benefits of the JT.)

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## CHAPTER 1 INTRODUCTION

### 1.0 Overview

(Provide a brief overview that indicates the program is under the auspices of OSD, DOT&E and that the Services and joint community have agreed the test is necessary. Identify the lead Service(s), sponsoring organizations, and participating Services.)

### 1.1 Background

(Provide a brief description of the background of the problem. Include the nature and origin of the problem. Provide examples of missions and scenarios that demonstrate the problem.)

#### 1.1.1 Problem Description

(Provide a brief description of the desired operational capability impacted by the problem. Introduce supporting figures.)

**Figure 1-1. Operational View (OV-1)**

**Figure 1-2. Systems Interface Description (SV-1)**

#### 1.1.2 Problem Statement

(List and discuss the problem statement to include participation of your JWAG, Services, and joint community and their concurrence that resulted in this particular problem statement.)

*Enter the exact, agreed-upon problem statement here (left justified and indented at left and at right).*

Text to introduce test scope and figure.

**Figure 1-3. Test Scope**

#### 1.1.3 Test Issues and Sub-Issues

(List and discuss each of the principal issues and at least the first level of sub-issues that result in the clear description of the test questions that must be answered by the JT. Link issues and sub-issues to the problem description and problem statement. Go to the next level of sub-issues, if necessary.)

##### 1.1.3.1 Issue 1

##### Issue 1 Sub-Issues

##### 1.1.3.2 Issue 2

##### Issue 2 Sub-Issues

### 1.2 Test Purpose and Objectives

### **1.2.1 Purpose**

(State the purpose for conducting the JT in terms of its importance to joint warfighting capability.)

### **1.2.2 Objectives**

(In consonance with the test issues, state the principal objectives of the JT that will lead to improved warfighting capability and effectiveness.)

## **1.3 Test Schedule**

(Illustrate with a Gantt chart type figure. Indicate all test planning, execution, and post-test milestones for each planned mini-test, field-test, and simulation test event; indicate GOSC and JWAG meeting dates; and indicate test report dates [test event and final]). Figure 4-1 should be consistent with the Test Schedule slide in the TAB II briefing and in accordance with TAB guidance and PTP chapter 1.

**Figure 1-4. Test Schedule**

## CHAPTER 2 TEST CONCEPT

### 2.0 Introduction

(Provide short paragraph that leads into a discussion of the planned test concept. Recommend a review the “Develop Test Concept” training slides available from the JT&E Program Office.)

### 2.1 Test Approach

(The purpose of the test concept is to delineate the why, what, who, where, when, and how aspects of the planned test activities to answer the test issues. The test concept includes the planned test methods, selection of test venues and scenarios to generate the required data, test participants, test articles, test conditions that represent realistic operational test environments, and the controlled and uncontrolled test variables that influence the data analysis. The test concept should address the type of testing that will be performed and include how it will be conducted [in phases or concurrently]. This is a generic example, and specifics will have to be added. If phases are used, suggest lay out the test concept by test phase if this makes the explanation clearer. Use tables and figures as appropriate to simplify the information, but be sure to address the contents of each in the preceding discussion text.)

#### Figure 2-1. Test Concept

Use figures to illustrate participants, C2 nodes, and systems for each test venue where letdowns are different.

#### Figure 2-2. Field Test Laydown

##### 2.1.1 Test Articles

(Describe the test articles [e.g., changes to joint TTP, systems-of-systems architectures, and new or different process models and test methodologies]. These are likely to evolve as the test proceeds; however, this paragraph will contain the description of the test articles that evolve from real-world operations such as Operation IRAQI FREEDOM, the JWAG, dendritic analysis, and studies. The test articles directly relate to the test issues. Tables may be used to demonstrate linkage.)

## 2.1.2 Test Methods

(Includes mini-tests, field tests, and simulation tests that are used to generate test data to explicitly answer test issues and risk reduction events that validate the data collection and analysis processes to answer the test issues. For each type of test method, describe the objective for each test. Describe the test or training venue that supports the test to include location, owning organization, and scheduled dates, associated DIA [or other source] validated scenarios that will generate required test data, as well as organizations and related hardware [e.g., weapon systems, C2 systems, etc.] required to support the test. It is understood that out-year dates may not be locked, but provide what is known and a risk assessment or backup for each test venue.)

### 2.1.2.1 Mini-Tests

(As required. Address the objective of using the mini-test, planned test venue, and related scenario information.)

### 2.1.2.2 Field Tests

(As required. Address the objective of using the field test, planned test venue, and related scenario information.)

### 2.1.2.3 Simulation Tests

(As required. Address the objective for using simulation tests in the JT to include planned test venue and related scenario. Use simulation for test planning, training of participants, or for process modeling. VV&A may be required, depending upon the extent of M&S used in the test event.)

### 2.1.2.4 Risk Reduction Events

(As required. Provide an overview of the purpose and objective for conducting risk reduction events [e.g., training, validating data management and data collection methods, procedures, and process, ensure that planned instrumentation is configured and functions as expected, and/or perform initial assessment of candidate joint TTP and supporting C3I architecture].)

**Table 2-1. Test Method Matrix**

Issue Breakdown		Test Method			
Issue	Sub-Issue	Mini-Tests	Field Tests	Simulation Tests	Risk Reduction Events
1	1.1	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A
	1.2	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A
	1.3	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A
2	2.1	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A
	2.2	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A
	2.3	Venue or N/A	Venue or N/A	Venue or N/A	Venue or N/A

### 2.1.3 Test Venue Assessment Criteria

(Describe the methodology and criteria used to select the test venues for the JT. Include a description of the factors and weights (if applicable) used in this methodology.)

#### 2.1.3.1 Mini-Test Venue Selection Considerations

(Describe the primary and backup test venues selected for this test event and how they were derived. Fully explain how the primary is the best suited venue for the JT.)

#### 2.1.3.2 Field Test Venue Selection Considerations

(Describe the primary and backup test venues selected for this test event and how they were derived. Fully explain how the primary is the best suited venue for the JT.)

#### 2.1.3.3 Simulation Test Venue Selection Considerations

(Describe the primary and backup test venues selected for this test event and how they were derived. Fully explain how the primary is the best suited venue for the JT.)

#### 2.1.3.4 Risk-Reduction Event Selection Considerations

(Describe the venues selected to help reduce the risks associated with collecting data in the venues selected above. Include a paragraph for each risk reduction event and fully explain how each allows the JT to practice for the planned test events.)

## 2.2 Test Design

(Provide a test design matrix, linked to the issues and sub-issues, which links the test events to test conditions and number of intended test trials [sample size] per test condition and setting. If there are no specific test conditions, then do not include a test design matrix.)

**Table 2-2. Test Design Matrix**

Test	Test Conditions					
	Condition 1		Condition 2		Condition 3	
	Setting 1	Setting 2	Setting 1	Setting 2	Setting 1	Setting 2
Test Event 1	n	n	n	n	N/A	N/A
Test Event 2	N/A	N/A	n	n	n	n
Test Event 3	n	n	N/A	N/A	n	n

NOTE: Where “n” represents sample size and N/A indicates a condition setting is not applicable for that venue.

## 2.3 Assumptions, Limitations, and Constraints

(Identify any assumptions made to enable testing, how the JT intends to validate these assumptions, and how non-validation could impact the JT’s ability to test as planned. Also list any test constraints or limitations that are expected to impact the JT’s ability to plan and execute planned tests and how these will be mitigated to minimize their impact on test findings, conclusions, and recommendations.)

**Table 2-3. Test Constraints and Limitations**

<b>Limitations and Constraints</b>	<b>Mitigations</b>

## CHAPTER 3 DATA MANAGEMENT AND ANALYSIS

### 3.0 Introduction

(Paragraph that describes the overall chapter and an overview of data management and analysis for the JT.)

### Figure 3-1. Data Management and Analysis Overview

### 3.1 Data Management

(Paragraph that describes data management for the planned test events.)

#### 3.1.1 Dendritic and Test Data Requirements Matrix (TDRM)

(Paragraph that describes the TDRM and how it was derived. The TDRM provides the data requirements for data to be collected during the JT.)

#### 3.1.2 Data Collection

(Paragraph that describes data collection for the JT, including manual and automated data collection forms, system tapes, questionnaires, audio recordings, and possibly video recordings. Also describe procedures for recording test incidents.)

##### 3.1.2.1 Overview

(Paragraph that describes an overview of data collection. Include the flow of data from specific collectors and nodes to the data manager and then to the database for processing and analysis.)

### Figure 3-2. Data Collection Flowchart

##### 3.1.2.2 Mini-Tests

(As applicable, address any unique data collection and instrumentation requirements needed for conduct of the mini-test(s), especially if critical to conducting the test event(s). If none, do not address.)

##### 3.1.2.3 Field Tests

(As applicable, address any unique data collection and instrumentation requirements needed for conduct of the field test(s), especially if critical to conducting the test event(s). If none, do not address.)

##### 3.1.2.4 Simulation Tests

(As applicable, address any unique data collection and instrumentation requirements needed for conduct of the simulation test(s), especially if critical to conducting the test event(s). If none, do not address.)

##### 3.1.2.5 Risk Reduction Events

(As applicable, address any unique data collection and instrumentation requirements needed for conduct of the risk reduction events.)

### **3.1.3 Data Quality Control and Data Quick Look**

(Paragraph that describes how the JT intends to conduct quality control checks as data is collected and the level to which analysis will be conducted during each test.)

### **3.1.4 Media Handling and Control**

(This section describes the procedures necessary to ensure proper identification, control, distribution, security, and storage of data media.)

#### **Figure 3-3. Media Handling and Control Process**

#### **3.1.4.1 Media Identification**

- (The JT will use media identification codes [MICs] to identify every data media item used to collect data during each test event.)

#### **3.1.4.2 Media Distribution and Control**

(The primary method for distributing data collection media lays in the generation of data collection packages.)

#### **Figure 3-4. Media Distribution Process**

### **3.1.5 Data Library System**

(The DM will establish and manage a data library. The media librarian will receive, control, store, and archive all data and data media collected and generated during the JT.)

#### **Figure 3-5. Data Processing Flow**

#### **3.1.5.1 Library Archiving Procedures**

(The DM will establish a systematic procedure to archive the entire analytical database on at least a monthly basis. The DM will also ensure an automated procedure is in place to backup changes to the individual database tables on a daily basis.)

#### **3.1.5.2 Data Access and Control**

(The DM will ensure only properly authorized personnel can access test data. The DM will control physical access to data media using the MLS check-in and checkout mechanisms, which apply to test sites and the JT headquarters.)

#### **Figure 3-6. Data Access and Control Process**

#### **3.1.5.3 Primary and Backup Database Process**

(For each test event, the DM will make a backup of all test data as soon as possible at the test site. The JT will transport or transmit original and backup data via separate, traceable means to minimize the risk of data loss. After each test event, the DM will ensure that all required data are processed and maintained in an analytical database. The



DM will facilitate daily electronic database backups on changes to the database to ensure that the risk of a complete data loss is minimal.)

#### **3.1.5.4 Data Anomaly Process**

(The data anomaly process consists of reviewing data for consistency, completeness, and validity and determining that required data elements are present for the data reduction process. This process will occur throughout data processing conducted for each test event, from the collection of raw data to data fully processed for analysis. Personnel discovering data anomalies during the review process will document them using a data anomaly report form. Data Anomaly Review Boards, chaired by the JT Technical Director, can correct, mitigate, or disregard data anomalies.)

#### **3.1.6 Classified Data Control and Storage**

(The security manager will ensure that personnel properly classify, mark, log, and store data collected during test events in compliance with applicable security regulations and the guidance. The marking of classified data will be in accordance with DOD Publication 5200.1-R, *Information Security Program*; DOD Pamphlet 5200.1-PH, *DOD Guide to Marking Classified Documents*; and the Security Classification Guide (SCG).)

### **3.2 Analysis**

(The analysis process focuses on the methods and procedures necessary for analyzing test data and producing quantitative and qualitative test findings and conclusions.)

#### **Figure 3-7. Analysis Approach**

#### **3.2.1 Types of Analysis**

(The JT will use both statistical analysis and operational assessment to analyze data collected in the test events. The following sections describe each method.)

##### **3.2.1.1 Statistical Analysis**

(Statistical analysis consists of exploratory analysis, confirmatory analysis, and extended analysis. The JT will likely use both types of analyses in combination to adequately analyze test data collected during each phase of the test concept.)

##### **3.2.1.1.1 Exploratory Analysis**

(Exploratory analysis includes sample statistics, parametric and non-parametric statistics, trend analyses, graphical analyses, and analysis of variance techniques for each of the test measures. Analysts will use exploratory analysis to understand, characterize, and investigate test data. The types of explorations performed will be very much dependent on the data collected.)

##### **3.2.1.1.2 Confirmatory Analysis**

(Confirmatory analysis consists of statistics and hypothesis testing techniques, where the analysts will conduct comparative analyses of the effects of changes between different, but related, sets of data. Confirmatory analysis will include non-parametric (for example, Chi-Square test, Kolmogorov-Smirnov test, Runs test, and tests for independent or related samples), parametric (for example, compare means,

independent or related sample t-tests, regression, and analysis of variance), design of experiments, and analysis of variance statistical analysis methods to support mini-tests and field tests. Where hypothesis testing is appropriate, this step will include the application of parametric tests or non-parametric tests. Analysis of survey data, particularly data from scaled questionnaires, typically requires the use of non-parametric statistical methods. These methods lead to the possible aggregation of questionnaire groupings into single data sets.)

#### **3.2.1.1.3 Extended Analysis**

(Analysts will use extended analysis to increase the quantity of data collected during test events through simulation, sensitivity analysis, or extrapolation. During the data analysis, the analysis products may indicate unexpected trends based on a limited set of data. When this occurs, analysts will extrapolate data analysis to address factors outside of the basic data collection intent. For example, it may be determined that the performance of the test article is satisfactory at certain test nodes but not at others. However, data collected at the non-satisfactory test nodes was sparse. To determine the potential effect (negative or positive) of the test article at the non-satisfactory test nodes, it may be necessary to statistically extrapolate the data analysis from the satisfactory test nodes to the non-satisfactory test nodes and use the sparse data as partial confirmation of extrapolation.)

#### **3.2.1.2 Operational Assessment**

(The statistical rigor inherent in a JT gives it validity, but also has the potential to obscure valuable operational test findings, conclusions, and recommendations in a maze of scientific jargon and statistical calculations. For this reason, JTs typically include experienced operational personnel throughout the analysis process.)

### **3.2.2 Analytical Support Requirements**

(The JT will assemble computer hardware and software tools designed to support the analysis functions. The analysis support requirements fall into the following three broad categories: 1) database support (relational database software and associated management tools), 2) process and analysis software, and 3) networked computer workstations.)

#### **3.2.2.1 Database Considerations**

(The JT will use selected database tools to structure a data model to efficiently organize, store, and retrieve test data to support the data analysis requirements. The DM will define the structure of the data model using the data requirements specified in the TDRM. The data model will use data tables to assemble related data. The JT analytical software requirements include the need for various relational database languages such as Oracle or Structured Query Language (SQL) and interfaces with languages such as XML (Extensible Markup Language) and Java. Productivity utilities to generate forms and reports are also required. The DM will place all relational database management system (RDBMS) software developed and used in the JT under item configuration control.)

#### **3.2.2.2 Process and Analysis Software**

(More sophisticated programs will be required to support the process modeling, assessment, and analysis activities. Analysis software must support the statistical analysis of calculated measures associated with process activities to determine the extent to which each affected the subsequent process activities or final output. Statistical analysis focuses on the MLM, MOP, and MOE calculation factors. Analysis tools will support, at a minimum, calculation of numerical descriptive statistics, hypotheses testing, mathematical significance, and effect size calculation.)

#### **3.2.3 Analysis Products**

(The analysis products will be in the form of tables, graphs, and figures to simplify interpretation and understanding of the operational decision-maker. The format of the analysis products will support a variety of statistical outputs such as sample statistics, results of parametric and non-parametric tests, graphical plots, and so forth. The format will also support summaries of time-tagged events relative to each test participant, test cell, and associated test measure.)

### **3.3 Evaluation Plan**

(The JT will conduct an evaluation after each scheduled test event that will include assessment and reporting of analytical results focused specifically on answering the test issues.)

#### **Figure 3-8. Evaluation Methodology**

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## CHAPTER 4 TEST PRODUCTS

### 4.0 Introduction

(This chapter identifies expected test products that prospective owners can implement and institutionalize.)

### 4.1 Test Products

(Lists expected test products the prospective product owners.)

**Table 4-1. Test Products and Associated Owners**

Products	Owners

### 4.2 Test Product Transition

(Lists the key organizations for successfully institutionalizing test products.)

**Table 4-2. Test Product Transition Organizations**

Organization	Role	Impact

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## CHAPTER 5 RESOURCES

(NOTE: The mandatory tables included in this chapter contain illustrative data only. The CRE database for the JT will include these tables of data specific to the JT.)

### 5.0 Overview

(This chapter describes resource requirements for the JT. As part of the normal program analysis process, the JT will revise the CRE in conjunction with the development of each DTP to reflect the costs for conducting each test event to ensure costs are realistic, relevant, affordable, and current. If test events remain stable, the JT will review the CRE annually and update as required. Costs for the JT will be shared between the Office of the Secretary of Defense (OSD), the Services, combatant commands (COCOMs), and/or other agencies, as applicable. OSD funding, controlled by the JT&E Program Office (JPO), covers all associated joint test unique costs such as contract costs, travel, certain material, and requisite test execution costs and unique test costs. The resource sponsor controls JT operations and maintenance (O&M) funding for the Service, COCOM, and/or other agency, as applicable, which is the sponsoring Service, COCOM, and/or other agency, as applicable, for XXXX. The resource sponsor is responsible for providing JT facility infrastructure and funds for certain material costs and test costs that are not unique. The Service, COCOM, participating Services, and/or other agencies are responsible for providing government personnel.)

### 5.1 Resource Management

#### 5.1.1 Planning

(The resource sponsor will provide personnel support and funding for office furniture, supplies, and equipment. The resource sponsor will provide the facility for the core JT team to include infrastructure costs and base level personnel staffing support, as well as normal base level functions supporting tenant units.)

**Table 5-1. Staffing**

FY	07				08				09			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government												
Air Force	2	2	4	4	4	4	4	4	4	4	4	3
Army	0	3	4	4	4	4	4	4	4	4	4	2
Marine Corps	0	0	1	1	1	1	1	1	1	1	1	1
Navy	0	2	3	3	3	3	3	3	3	3	3	2
Civilian	2	4	4	4	4	4	4	4	4	4	4	4
<b>Subtotal</b>	<b>4</b>	<b>11</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>12</b>
Contractors	12	15	15	15	15	15	15	15	15	15	11	6
<b>Grand Total</b>	<b>16</b>	<b>26</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>27</b>	<b>18</b>

### **5.1.2 Support Services**

(Executing test events will require a broad range of services and many are approximations years in advance of actual execution. DTPs developed and published in advance of each test event will contain administrative and logistics sections that will specify those services and the responsible agencies that will provide the services. The administrative and logistics requirements for each scheduled test event will be coordinated with all involved agencies during the Test Plan Working Group meetings that are convened as part of the DTP development process.)

### **5.1.3 Resource Accountability**

#### **5.1.3.1 Budgeting**

(OSD provides the majority of JT funding. The resource sponsor provides additional O&M funding. The XXXX JT forwards funding requirements to each participating Service and agency.)

#### **5.1.3.2 Property Accountability**

(The equipment custodian will maintain distinct property books to properly account for all material. OSD-provided material will be tracked separately from Service-, COCOM-, and/or other agency-provided material and resource sponsor-provided material. The JT will establish procedures to deliver to the equipment custodian, all material flowing into the JT for immediate entry into inventory control.)

### **5.1.4 Unique Test Equipment**

(List all unique test equipment such as portable TSPI instrumentation for ranges that lack instrumentation, MILES equipment that tracks movement and engagement results of individual ground troops and vehicles for purpose of blue force tracking and to determine probability of kill rates.)

## **5.2 Formal Agreements**

(The JT will coordinate with the Services to obtain resources (funding, personnel, and material) required to support the JT and test activities. The Joint Test Director (JTD) will sign memorandums of agreement (MOAs) to formalize arrangements and assign responsibilities and requirements between the JT and external agencies. The JT will review and update resource requirements, as necessary, and will initiate, modify, or terminate agreements as required for the successful execution of its charter. XXXX will forward new requirements through Service channels in accordance with respective Service and DOD directives.)

## **5.3 Personnel**

(The CRE provides detailed personnel costs for government (military and civilian) and contractor personnel. Government personnel requirements will be coordinated with the Services. An underlying assumption is that the Services will provide requested personnel in a timely fashion.)



**Table 5-2. Government Staff**

<b>Service</b>	<b>Position Title</b>	<b>Grade</b>	<b>MM/CY</b>
Air Force	Test Director	O-6	10/06-09/09
Air Force	Deputy Test Director	O-5	10/06-09/09
Air Force	Airborne C2	O-4	04/07-06/09
Air Force	USAF Coordinator	O-4	04/07-09/09
Air Force	Technical Director	GS-15	10/06-09/09
Air Force	Security Manager	GS-13	01/07-09/09
Air Force	Executive Assistant	GS-7	01/07-09/09
Army	Deputy Director Support & Financial Mgt	O-5	04/07-09/09
Army	Deputy Director Analysis & Reports	O-5	01/07-06/09
Army	USA Coordination	O-3	01/07-06/09
Army	Personnel	E-8	01/07-09/09
Army	Financial Analyst	GS-13	10/06-09/09
Marine Corps	USMC Coordinator	O-4	04/07-09/09
Navy	Deputy Director Ops/Training/Test	O-5	04/07-09/09
Navy	Information Manager	E-8	01/07-06/09
Navy	Logistics	E-8	01/07-09/09

**Table 5-3. Contractor Staff**

<b>Position Title</b>	<b>MM/CY</b>
Test Manager	10/06-09/09
C2 Systems Analyst	10/06-09/09
Combat Ops Analyst	10/07-09/09
Intel Analyst	10/06-09/09
Test Manager	10/06-09/09
JTAC Analyst	10/07-09/09
Exercise Planner	10/06-09/09
Data Base Manager	10/06-09/09
C2 Systems Analyst 2	10/06-09/09
Data Analyst Manager	10/06-09/09
Senior Network Admin	10/06-09/09
Training & Test Products	10/06-09/09
Technical Editor	10/07-09/09
Ops/Intel Analyst	10/06-09/09
Task Manager/Operations Analyst	10/06-09/09

## **5.4 Facilities**

(Describe where the JT facility is located.)

## **5.5 Service Support Requirements**

(The JT will submit Service-specific resource requirements (personnel, test assets, flying hours, range usage, and so forth) to each Service as outlined below.)

### **5.5.1 Army Outline Test Plan**

(The OTP documents initial JT resource requirements for submission to ATEC for fill. During follow-on resource reviews, the Army Service Deputy (ASD) will identify and refine Army resources required by the JT and forward the revised requirements to ATEC.)

### **5.5.2 Air Force Test Resources Plan**

(The TRP documents initial JT resource requirements for submission to Headquarters, Air Force Joint Test and Evaluation Office (AFJO). During follow-on resource reviews, the Air Force Service Deputy (AFSD) will identify Air Force resources required by the JT and forward the requirements to AFJO.)

### **5.5.3 Navy Support**

(The Navy does not have a systematic process or dedicated funding and personnel to support the JT&E Program. Initial JT resource requirements will be submitted through the Chief of Naval Operations (CNO) Director, Test and Evaluation Programs Division (N912) and the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) for review.)

### **5.5.4 Marine Corps Support**

(The United States Marine Corps does not have a systematic process or dedicated funding and personnel to support the JT&E Program. The Marine Corps Service Deputy (MCSD) will identify respective Service resources required by the JT and will coordinate with Service organizations, such as Headquarters, Marine Corps and the Marine Corps Combat Development Center (MCCDC), to obtain necessary support, as required.)

## **5.6 Other Support Requirements**

(Describe any support provided by organizations and/or agencies not described in previous sections.)

## CHAPTER 6 MANAGEMENT

### 6.0 Introduction

(This chapter describes project management for the JT.)

### 6.1 Organization and Responsibilities

(Describe the JT organization that aligns functional responsibilities under key staff members. The JTD will oversee the JT and Service Deputies and other key personnel will assist. The JTD will ensure that all JT activities are coordinated among the functional areas.)

#### Figure 6-1. XXXX Organization

#### 6.1.1 Joint Test Director

(The JTD is responsible for the overall management and leadership of the JT. The JTD is ultimately responsible for successfully executing and completing the JT as directed by DD,AW on schedule and within budget. The JTD will coordinate relevant aspects of JT activities with the Services and supporting organizations. The JTD is also responsible for the safe execution of test activities while minimizing environmental impact. The JTD directs test planning, data management and analysis, resource management, and contractor support functions. The JTD also develops and implements a comprehensive JT Security Plan (contained in annex H) to protect sensitive aspects of the project.)

#### 6.1.2 Deputy Test Directors and Key Billets

(List key positions and responsibilities.)

**Table 6-1. Table of Key Positions and Responsibilities**

Title or Position	Description and Responsibilities

**6.1.3 Additional JT Positions**

(List additional positions.)

**6.2 Advisory Functions**

(The JTD will exercise oversight of test planning, execution, analysis, assessment, and reporting activities through a series of review groups and boards.)

**6.2.1 General Officer Steering Committee (GOSC)**

(List the GOSC members and their responsibilities.)

**Table 6-1. General Officer Steering Committee (GOSC) Composition**

GOSC Members

**6.2.2 Joint Warfighter Advisory Group (JWAG) (If established)**

(List JWAG members and their responsibilities.)

**Table 6-2. Joint Warfighters Advisory Group (JWAG) Composition**

JWAG Members

**6.2.3 Technical Advisory Group (TAG) (If established)**

(The Technical Advisory Group (TAG) is a technical body formed to provide direct technical advice to the JTD. A TAG should only be formed if there are complex technical issues.)

**6.3 Program Management Reviews**

(The JTD will exercise control, management, and assessment of the JT through a series of internal and external periodic reviews as outlined in the following sections.)

**6.3.1 Internal**

(The JTD will conduct periodic milestone reviews to ensure that all test planning, test execution, and post-test activities are appropriately accomplished for an efficient and effective execution of the PTP.)

**Table 6-4. Internal Reviews**

<b>Review</b>	<b>Purpose</b>

**6.3.2 External**

(External reviews include annual in-progress review briefings to DD,AW, and the JPO. Annual reviews focus on JT progress, technical risk, test products, and execution of the JT schedule and budget plan.)

**Table 6-5. External Reviews**

<b>Review</b>	<b>Purpose</b>

**6.4 Plans and Reports****6.4.1 Plans**

(The JT will submit all plans and reports in accordance with the timelines published in this handbook.)

**6.4.1.1 Detailed Test Plan (DTP)**

(A DTP will be prepared for each scheduled mini-test and field test. As a coordination document, each DTP will be a stand-alone document and will address test planning items and actions by all participants accomplished in preparation for, during, and after a specific test event. Controlled by the JTD or the delegated representative, the JT will draft the DTP and provide it to the JPO, JT TD, assigned Action Officer, and assigned Federally-Funded Research and Development Center (FFRDC) representative for review and comment, 60 working days before test execution. The JTD will sign the DTP after making all adjudicated modifications, but no later than 20 working days before test execution.)

**6.4.1.2 Closedown and Transition Plan (CTP)**

(The JT will publish a closedown and transition plan (CTP) that addresses the drawdown and release of personnel (to include personnel efficiency reports, and personnel awards and recognitions) as well as the transition of test products. This plan will include the accountability and return of property, termination of contracts, termination of support agreements, closeout of fiscal accounts, and return of facilities. This plan will also

address all facets of test product ownership and transfer to include who, where, and how the test products should be institutionalized.)

## **6.4.2 Reports**

### **6.4.2.1 Quick Look Report (QLR)**

(The JT will produce a QLR as a top-level summary of initial findings from each mini-test, simulation test, and field test. The report is preliminary, informal feedback to the customers.)

### **6.4.2.2 Test Event Report (TER)**

(The JT will write and submit a TER after each scheduled test event to communicate the results of a completed test. TERs will provide an audit trail for the development of the findings, conclusions, and recommendations.)

### **6.4.2.3 Management Reports**

(The JT will produce a series of management reports to keep DOT&E and other agencies apprised of JT progress.)

#### **6.4.2.3.1 Monthly Progress Report**

(The monthly progress report addresses significant accomplishments for the past month, events scheduled for the next quarter, documentation status, issues or problems, papers and articles to be published, conferences and symposium attendance, briefing schedule for the next 90 days, and JTD's comments.)

#### **6.4.2.3.2 Monthly Resource Report**

(The monthly resource report contains updated financial data, personnel status to include personnel actions projected for the next 120 days, organizational changes, and financial or personnel resource issues.)

#### **6.4.2.3.3 Special Report**

(The JTD will submit a special report to DD,AW when critical problems occur that require immediate attention and are beyond the JTD's capability to resolve.)

### **6.4.2.4 Final Report (FR)**

(Preparation of the FR is an aggregation of all test event reports completed after each scheduled test event. The JTD will devote the required time, effort, and resources to ensure the FR and supporting briefing are quality products that contain defensible, meaningful test findings, conclusions, and recommendations.)

### **6.4.2.5 Lessons Learned Report (LLR)**

(The LLR will address problem areas encountered, solutions worked, outstanding problems, and assistance required. The LLR provides the JPO, current JTDs, and new JT projects with a comprehensive and current view of activities in which the JT was involved.)

## 6.5 Security

(The JT will establish a comprehensive security program.)

### 6.5.1 Personnel

(Members of the JT will strictly comply with all security requirements at each location where JT activities occur.)

**Table 6-6. Security Topics Covered in Annex H**

Topic	Related Issues

### 6.5.2 Special Facilities

(Describe the need for any special facilities such as a SCIF.)

## 6.6 Safety

(The JTD is directly responsible for safety and risk management for the JT.)

## 6.7 Environmental Considerations

(During each test event, the JT will protect the environment from contamination or damage. The JT will integrate applicable federal, state, and local agencies into the test planning and coordination process to ensure compliance with applicable laws and directives.)

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[illegible]



[illegible]



## ANNEX C DENDRITIC AND TEST DATA REQUIREMENTS MATRIX (TDRM)

### C.0 Introduction

(The purpose of the dendritic is to describe the results of systematic decomposition of issues into sub-issues and related measures to determine the data elements required for calculating the measures and answering the test issues. The TDRM lists the data required to calculate the test measures and addresses the sources and methods required to collect these DE. The TDRM also documents the manner in which DE will be collected and their linkage to the issues and measures. The JT will use the TDRM as the starting point to develop a comprehensive integrated data requirement lists (IDRL) for each detailed test plan.)

### C.1 Dendritic

(The following sections focus on each of the sub-issues and associated test measures and the definitions required to fully understand the intent and scope of each sub-issue. These explanations address definitions of key terms used in the dendritic.)

#### C.1.1 Issues

Paragraph. The principal issues are:

- Issue 1:
- Issue 2:

Paragraph.

#### C.1.2 Sub-Issues

(The sub-issues serve to further define the focus and scope of both the issues and the JT.)

##### C.1.2.1 Sub-Issue 1.1 Test Measures

*Sub-Issue 1.1:*

MOEs:

MOPs:

##### C.1.2.2 Sub-Issue 1.2 Test Measures

*Sub-Issue 1.2:*

MOEs:

MOPs:

##### C.1.2.4 Sub-Issue 2.1 Test Measures

[illegible]

(The dendritic presented decomposes the problem statement into issues and sub-issues, measures, and DEs. The TDRM maps the complete linkage from the measures to the DEs to the data sources.)

**Table C-2. Test Data Requirements Matrix (TDRM)**

Issue	Sub-Issue	Measure	Data Element	Data Source	Data Media	Instrumentation	Test Condition	Test Event
1.0	1.1	1.1.1 Percent Mission Success	Nbr of successes	Nodes	Manual Form	Axim PDA	ALL	ALL
			Nbr of attempts	Nodes	Manual Form	Axim PDA	ALL	ALL
1.0	1.1	1.1.2 Mean Transmission Time	Time received	Nodes	Manual Form	Axim PDA	ALL	ALL
			Time sent	Nodes	Manual Form	Axim PDA	ALL	ALL
1.0	1.1	1.1.3 Percentage of Favorable User Ratings	Nbr of favorable user ratings	Nodes	Questionnaire	Web Server	ALL	ALL
			Nbr of total user ratings	Nodes	Questionnaire	Web Server	ALL	ALL
1.0	1.2	1.2.1 Percent Personnel Trained	Nbr of personnel trained	Training Class	Manual Form	Axim PDA	ALL	MT1
			Nbr of personnel performing operations	Nodes	Manual Form	Axim PDA	ALL	MT1
1.0	1.2	1.2.2 Mean Training Time	Time training began	Training Class	Manual Form	Axim PDA	ALL	MT1
			Time training finished	Training Class	Manual Form	Axim PDA	ALL	MT1
1.0	1.3	1.2.3 Percentage of Favorable Trainee Rating	Nbr of favorable trainee ratings	Training Class	Questionnaire	Web Server	ALL	MT1
			Nbr of total trainee ratings	Training Class	Questionnaire	Web Server	ALL	MT1
2.0	2.1	2.1.1 Percent System Depictions	Nbr of system depictions corresponding to actual depictions	Nodes	CD-RW	PC Data Logger	ALL	FT
			Nbr of depictions	Nodes	CD-RW	PC Data Logger	ALL	FT

Issue	Sub-Issue	Measure	Data Element	Data Source	Data Media	Instrumentation	Test Condition	Test Event
2.0	2.1	2.1.2 Percentage of Favorable System User Ratings	Nbr of favorable user ratings of systems	System User	Questionnaire	Web Server	ALL	FT
			Nbr of total user ratings of systems	System User	Questionnaire	Web Server	ALL	FT



## ANNEX D CONSOLIDATED RESOURCE ESTIMATE (CRE)

### D.0 Introduction and Summary

The CRE describes the resources and cost estimates for executing the JT. Provides estimates at the summary level while the appendix shows itemized lists to provide additional detail where needed.)

**Table D-1. Staffing**

FY	07				08				09			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Government												
Air Force	2	2	4	4	4	4	4	4	4	4	4	3
Army	0	3	4	4	4	4	4	4	4	4	4	2
Marine Corps	0	0	1	1	1	1	1	1	1	1	1	1
Navy	0	2	3	3	3	3	3	3	3	3	3	2
Civilian	2	4	4	4	4	4	4	4	4	4	4	4
<b>Subtotal</b>	<b>4</b>	<b>11</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>12</b>
Contractors	12	15	15	15	15	15	15	15	15	15	11	6
<b>Total</b>	<b>16</b>	<b>26</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>27</b>	<b>18</b>

**Table D-2. XXXX Program Cost Summary**

Category	FY	07	08	09	Total
1.1.1 Administrative Travel		\$34,098	\$2,840	\$2,892	<b>\$39,830</b>
1.1.2 TAG Tvl & Support		\$636	\$1,279	\$1,302	<b>\$3,217</b>
1.1.3 JWAG Tvl & Support		\$4,982	\$3,214	\$3,258	<b>\$11,454</b>
1.1.4 GOSC Tvl & Support		\$5,621	\$11,308	\$5,991	<b>\$22,920</b>
1.1.5 Sym/Conf Tvl & Support		\$8,840	\$8,987	\$9,131	<b>\$26,958</b>
1.2 Automated Data Processing		\$126,022	\$19,352	\$19,352	<b>\$164,726</b>
1.3.1 RR-1		\$12,474	\$872	\$870	<b>\$14,216</b>
1.4 Production		\$1,756	\$5,500	\$13,500	<b>\$20,756</b>
1.5 Infrastructure		\$8	\$0	\$0	<b>\$8</b>
1.6.2.1 Contractor Staff Rates		\$2,594,400	\$2,822,900	\$2,282,190	<b>\$7,699,490</b>
1.6.2.2 Contractor SME Support Rates		\$6,300	\$5,500	\$11,500	<b>\$23,300</b>
1.6.2.3 Contractor Staff Relocations		\$25,000	\$0	\$0	<b>\$25,000</b>
1.7 Program Modeling & Simulation		\$250,003	\$100,000	\$50,000	<b>\$400,003</b>
1.8 Final Test Products		\$0	\$0	\$33,000	<b>\$33,000</b>
<b>OSD Subtotal</b>		<b>\$3,070,140</b>	<b>\$2,981,752</b>	<b>\$2,432,986</b>	<b>\$8,484,878</b>
2.1.3 JWAG Tvl & Support		\$1,769	\$2,000	\$0	<b>\$3,769</b>
2.2 Automated Data Processing		\$168,776	\$19,776	\$19,776	<b>\$208,328</b>
2.3.1 RR-1		\$463	\$0	\$0	<b>\$463</b>
2.5 Infrastructure		\$10,902	\$10,688	\$10,887	<b>\$32,477</b>
2.6.1 Government Personnel		\$1,492,320	\$2,094,720	\$2,035,200	<b>\$5,622,240</b>
<b>Service Subtotal</b>		<b>\$1,674,230</b>	<b>\$2,127,184</b>	<b>\$2,065,863</b>	<b>\$5,867,277</b>
3.1.3 JWAG Tvl & Support		\$422	\$0	\$0	<b>\$422</b>
<b>EUCOM Subtotal</b>		<b>\$422</b>	<b>\$0</b>	<b>\$0</b>	<b>\$422</b>
<b>Total</b>		<b>\$4,744,792</b>	<b>\$5,108,936</b>	<b>\$4,498,849</b>	<b>\$14,352,577</b>

## D.1 OSD Costs

(OSD costs are nominally broken out into Support (to include administrative travel costs and travel and support costs for Technical Advisory Groups [TAG], Joint Warfighter Advisory Groups [JWAGs], General Officer Steering Committees [GOSCs], and symposia/conferences), ADP, tests, production, infrastructure, personnel costs, program (M&S), and final test products.)

### D.1.1 Support Costs

(Support costs are those costs necessary for JT support, but not for specific test activities.)

#### D.1.1.1 Administrative Travel Costs

(A summary of administrative travel [that is, travel not directly related to testing, test planning, or attendance at conferences and/or symposia ]. This administrative travel is for Joint Test Director (JTD) support, research, JPO meetings, coordination, technical training, and subject matter expert (SME) support and any “other” joint feasibility study [JFS]-specific defined category, if applicable.)

**Table D-x. XXXX OSD Administrative Travel Cost Summary**

FY	07	08	09	Total
<b>1.1.1.1 JTD Support</b>				
Gov Tvl	\$5,720	\$0	\$0	\$5,720
Con Tvl	\$6,269	\$0	\$0	\$6,269
<b>Subtotal</b>	<b>\$11,989</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11,989</b>
<b>1.1.1.2 Research</b>				
Gov Tvl	\$437	\$0	\$0	\$437
Con Tvl	\$437	\$0	\$0	\$437
<b>Subtotal</b>	<b>\$874</b>	<b>\$0</b>	<b>\$0</b>	<b>\$874</b>
<b>1.1.1.3 JPO Meetings</b>				
Gov Tvl	\$2,781	\$0	\$0	\$2,781
Con Tvl	\$2,781	\$2,840	\$2,892	\$8,513
<b>Subtotal</b>	<b>\$5,562</b>	<b>\$2,840</b>	<b>\$2,892</b>	<b>\$11,294</b>
<b>1.1.1.4 Coordination</b>				
Gov Tvl	\$5,145	\$0	\$0	\$5,145
Con Tvl	\$10,528	\$0	\$0	\$10,528
<b>Subtotal</b>	<b>\$15,673</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,673</b>
<b>1.1.1.5 Technical Training</b>				
Gov Tvl	\$0	\$0	\$0	\$0
Con Tvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>1.1.1.6 SME Support</b>				
Gov Tvl	\$0	\$0	\$0	\$0
Con Tvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>1.1.1.7 Other</b>				
Gov Tvl	\$0	\$0	\$0	\$0
Con Tvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Gov Tvl Total</b>	<b>\$14,083</b>	<b>\$0</b>	<b>\$0</b>	<b>\$14,083</b>
<b>Con Tvl Total</b>	<b>\$20,015</b>	<b>\$2,840</b>	<b>\$2,892</b>	<b>\$25,747</b>
<b>Total</b>	<b>\$34,098</b>	<b>\$2,840</b>	<b>\$2,892</b>	<b>\$39,830</b>

**D.1.1.2 TAG Travel and Support Costs**

(Complete this section only if you are planning to have a TAG. If you do plan to have a TAG, then discuss travel costs associated with critical government members of the TAG who are unable to fund their own travel. If you plan to hold the TAG at a site other than your JT location, include a discussion of any travel [to include JT team members] and support costs [for example, leasing a hotel conference room].)

**Table D-x. XXXX OSD TAG Travel and Support Cost Summary**

FY	07	08	09	Total
1.1.2.1 TAG Personnel Travel				
Gov Tvl	\$635	\$1,279	\$1,302	\$3,216
Con Tvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$635</b>	<b>\$1,279</b>	<b>\$1,302</b>	<b>\$3,216</b>
1.1.2.2 TAG Support	\$1	\$0	\$0	\$1
<b>Total</b>	<b>\$636</b>	<b>\$1,279</b>	<b>\$1,302</b>	<b>\$3,217</b>

**D.1.1.3 JWAG Travel and Support Costs**

(For JWAGs, discuss travel costs associated with critical members of the JWAG who are unable to fund their own travel. If you plan to hold the JWAG at a site other than your JT location, include a discussion of any travel [to include JT team members] or support costs [for example, leasing a hotel conference room].)

**Table D-x. XXXX OSD JWAG Travel and Support Cost Summary**

FY	07	08	09	Total
1.1.3.1 JWAG Personnel Travel				
Gov Tvl	\$4,482	\$2,214	\$2,258	\$8,954
Con Tvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$4,482</b>	<b>\$2,214</b>	<b>\$2,258</b>	<b>\$8,954</b>
1.1.3.2 JWAG Support	\$500	\$1,000	\$1,000	\$2,500
<b>Total</b>	<b>\$4,982</b>	<b>\$3,214</b>	<b>\$3,258</b>	<b>\$11,454</b>

**D.1.1.4 GOSC Travel and Support Costs**

(Discuss travel costs associated with critical members of the GOSC who are unable to fund their own travel.)

**Table D-x. XXXX OSD GOSC Travel and Support Cost Summary**

FY	07	08	09	Total
1.1.4.1 GOSC Personnel Travel				
Gov Trvl	\$5,321	\$10,858	\$5,541	\$21,720
Con Trvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$5,321</b>	<b>\$10,858</b>	<b>\$5,541</b>	<b>\$21,720</b>
1.1.4.2 GOSC Support	\$300	\$450	\$450	\$1,200
<b>Total</b>	<b>\$5,621</b>	<b>\$11,308</b>	<b>\$5,991</b>	<b>\$22,920</b>

**D.1.1.5 Symposia and/or Conference Travel and Support Costs**

(These costs are for contractor and government staff travel to conferences and symposia.)

**Table D-x. XXXX OSD Symposia and/or Conference Travel and Support Cost Summary**

FY	07	08	09	Total
1.1.5.1 Sym/Conf Personnel Travel				
Gov Trvl	\$7,240	\$7,387	\$7,531	\$22,158
Con Trvl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$7,240</b>	<b>\$7,387</b>	<b>\$7,531</b>	<b>\$22,158</b>
1.1.5.2 Sym/Conf Support	\$1,600	\$1,600	\$1,600	\$4,800
<b>Total</b>	<b>\$8,840</b>	<b>\$8,987</b>	<b>\$9,131</b>	<b>\$26,958</b>

**D.1.2 Automated Data Processing (ADP) Costs**

(Discuss your test data analysis equipment requirements to include a description of any stand-alone data analysis network to protect integrity and security of test data, any special software requirements like relational databases or statistical packages, and so forth.)

**Table D-x. XXXX OSD Automated Data Processing Cost Summary**

FY	07	08	09	Total
1.2.1.1 Computers - Workstations	\$15,375	\$0	\$0	\$15,375
1.2.1.2 Computers - Network & Servers	\$51,800	\$2,400	\$2,400	\$56,600
1.2.2.1 Printers - Black & White	\$2,800	\$1,800	\$1,800	\$6,400
1.2.2.2 Printers - Color	\$5,768	\$3,768	\$3,768	\$13,304
1.2.2.3 Printers - Test/Data Special Support	\$22,379	\$11,184	\$11,184	\$44,747
1.2.3.1 Electronic Data Collection - Portable Devices	\$24,000	\$0	\$0	\$24,000
1.2.3.3 Electronic Data Collection - Digital Cameras	\$1,700	\$200	\$200	\$2,100
1.2.3.5 Electronic Data Collection - Storage Devices	\$2,200	\$0	\$0	\$2,200
<b>Total</b>	<b>\$126,022</b>	<b>\$19,352</b>	<b>\$19,352</b>	<b>\$164,726</b>

**D.1.3 Test Activities**

(Test activity resources and costs involve travel for test preparation, enhancements, and test execution; data collection support; test force facilities at the test sites; test site support fees; and instrumentation. Detailed costs will be refined during detailed test planning.)

**Table D-x. XXXX OSD Test Cost Summary**

FY	07	08	09	Total
1.3.1 JXXXX RR-1	\$12,474	\$872	\$870	\$14,216
1.3.2 JXXXX MT-1	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$12,474</b>	<b>\$872</b>	<b>\$870</b>	<b>\$14,216</b>

**D.1.3.1 Test Event 1 Costs**

(Give a detailed description of Test Event 1 costs to include general reasoning on the number of people traveling for different activities [coordination, rehearsals, training, and costs for test preparation, range and/or facility, support systems, test systems, munitions and/or pyrotechnics, unique instrumentation, M&S, enhancements, interim test products, and test execution travel.] )

**Table D-x. XXXX OSD Test Event 1 Cost Summary**

FY	07	08	09	Total
<b>1.3.1.1 Test Preparation</b>				
Gov Tvl	\$1,257	\$852	\$868	\$2,977
Con Tvl	\$1,107	\$0	\$0	\$1,107
Non-Tvl	\$6	\$2	\$0	\$8
<b>1.3.1.2 Range/Facility</b>				
Non-Tvl	\$20	\$0	\$0	\$20
<b>1.3.1.3 Support Systems</b>				
Non-Tvl	\$12	\$0	\$0	\$12
<b>1.3.1.4 Test Systems</b>				
Non-Tvl	\$32	\$0	\$0	\$32
<b>1.3.1.5 Munitions/Pyrotechnics</b>				
Non-Tvl	\$2	\$10	\$2	\$14
<b>1.3.1.6 Unique Instrumentation</b>				
Non-Tvl	\$9	\$8	\$0	\$17
<b>1.3.1.7 Modeling &amp; Simulation</b>				
Non-Tvl	\$14	\$0	\$0	\$14
<b>1.3.1.8 Enhancements</b>				
Gov Tvl	\$437	\$0	\$0	\$437
Con Tvl	\$0	\$0	\$0	\$0
Non-Tvl	\$7	\$0	\$0	\$7
<b>1.3.1.9 Interim Test Products</b>				
Non-Tvl	\$8	\$0	\$0	\$8
<b>1.3.1.10 Test Execution Travel</b>				
Gov Tvl	\$9,563	\$0	\$0	\$9,563
Con Tvl	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$12,474</b>	<b>\$872</b>	<b>\$870</b>	<b>\$14,216</b>

**D.1.3.X Test Event 2, 3 ...**

(Same as tables for Test Event 1.)

**D.1.4 Production Costs**

(Discuss how you arrived at production costs, that is, how many hard copies or compact disks [CDs], electronic distribution, Kinko's vs. Government Printing Office vs. self-made trifolds, and so forth. These production costs are those costs that are not directly related to a test event or test product.)

**Table D-x. XXXX OSD Production Costs**

	FY	07	08	09	Total
<b>1.4.1 Program Test Plan</b>					
1.4.1.1 Supplies		\$1	\$0	\$0	\$1
1.4.1.2 Printing		\$1	\$0	\$0	\$1
1.4.1.3 Distribution		\$1	\$0	\$0	\$1
<b>Subtotal</b>		<b>\$3</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3</b>
<b>1.4.2 JT&amp;E Final Report</b>					
1.4.2.1 Supplies		\$1	\$0	\$2,000	\$2,001
1.4.2.2 Printing		\$1	\$0	\$5,000	\$5,001
1.4.2.3 Distribution		\$1	\$0	\$1,000	\$1,001
<b>Subtotal</b>		<b>\$3</b>	<b>\$0</b>	<b>\$8,000</b>	<b>\$8,003</b>
<b>1.4.3 Newsletter/Trifolds</b>					
1.4.3.1 Supplies		\$500	\$2,500	\$2,500	\$5,500
1.4.3.2 Printing		\$1,000	\$2,500	\$2,500	\$6,000
1.4.3.3 Distribution		\$250	\$500	\$500	\$1,250
<b>Subtotal</b>		<b>\$1,750</b>	<b>\$5,500</b>	<b>\$5,500</b>	<b>\$12,750</b>
<b>Total</b>		<b>\$1,756</b>	<b>\$5,500</b>	<b>\$13,500</b>	<b>\$20,756</b>

**D.1.5 Infrastructure Costs**

(The lead Service and/or COCOM named as the lead Service and/or COCOM pays infrastructure costs. However, some miscellaneous costs are negotiable, and table D-x shows those costs that OSD will fund. Describe these costs, for example, cellular device usage.)

**Table D-x. XXXX OSD Infrastructure Costs**

	FY	07	08	09	Total
<b>1.5.3.1 Telecom Equip - Telephone Desk Units</b>					
1.5.3.1.4 Tolls		\$1	\$0	\$0	\$1
<b>Subtotal</b>		<b>\$1</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1</b>
<b>1.5.3.2 Telecom Equip - Cellular Devices</b>					
1.5.3.2.1 Hardware		\$5	\$0	\$0	\$5
1.5.3.2.2 Service Charges		\$1	\$0	\$0	\$1
1.5.3.2.3 Tolls		\$1	\$0	\$0	\$1
<b>Subtotal</b>		<b>\$7</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7</b>
<b>Total</b>		<b>\$8</b>	<b>\$0</b>	<b>\$0</b>	<b>\$8</b>

**D.1.6 Personnel Costs**

(Personnel costs are broken out into government personnel costs (military and civilian) and contractor costs.)

**D.1.6.1 Government Personnel**

(NOTE: Usually not applicable under OSD. However, may be included as discussed in Section D.3, Other.)

**D.1.6.2 Contractor Costs**

(Contractor costs are broken out into three categories: contractor staff rates, SME support rates, and contractor relocation costs.)

**D.1.6.2.1 Contractor Staff Rates**

(Use typical JT labor categories, associated criteria, and rates based on an average of the matching rates of the companies supporting JTs. Actual costs will be determined and controlled through normal JT contracting processes, and estimates in this particular section are only a rough order of magnitude.)

**Table D-x. XXXX OSD Contractor Staff Rates**

Labor Category	Position Title	MM/CY	07	08	09	Total
Senior Analyst/Engineer	Test Manager	10/06-03/09	\$211,200	\$220,070	\$114,657	\$545,927
Senior Analyst/Engineer	C2 Systems Analyst	10/06-03/09	\$211,200	\$220,070	\$114,657	\$545,927
Engineer/Analyst	Combat Ops Analyst	01/07-03/09	\$115,200	\$160,051	\$83,387	\$358,638
Senior Analyst/Engineer	Intel Analyst	10/06-03/09	\$211,200	\$220,070	\$114,657	\$545,927
Senior Analyst/Engineer	Test Manager	10/06-06/09	\$211,200	\$220,070	\$171,985	\$603,255
Engineer/Analyst	JTAC Analyst	01/07-06/09	\$115,200	\$160,051	\$125,080	\$400,331
Senior Analyst/Engineer	Exercise Planner	10/06-06/09	\$211,200	\$220,070	\$171,985	\$603,255
Engineer/Analyst	Data Base Manager	10/06-06/09	\$153,600	\$160,051	\$125,080	\$438,731
Technician	C2 Systems Analyst 2	10/06-06/09	\$124,800	\$130,042	\$101,628	\$356,470
Senior Analyst/Engineer	Data Analyst Manager	10/06-09/09	\$211,200	\$220,070	\$229,313	\$660,583
Programmer/ Software	Senior Network Admin	10/06-09/09	\$128,640	\$134,043	\$139,673	\$402,356
Engineer/Analyst	Training & Test Products	10/06-09/09	\$153,600	\$160,051	\$166,773	\$480,424
Technical Editor	Technical Editor	01/07-09/09	\$113,760	\$158,051	\$164,689	\$436,500
Senior Analyst/Engineer	Ops/Intel Analyst	10/06-09/09	\$211,200	\$220,070	\$229,313	\$660,583
Senior Analyst/Engineer	Task Manager/Ops Analyst	10/06-09/09	\$211,200	\$220,070	\$229,313	\$660,583
Total			\$2,594,400	\$2,822,900	\$2,282,190	\$7,699,490

**D.1.6.2.2 OSD Contractor SME Support Rates**

(Discuss, in detail, this support to include the specific knowledge or experience the SME brings that is not resident on the full-time JT staff. Include a discussion on the level of support [that is, number of hours and duration, generally not to exceed 100 hours in a three-month period].)

**Table D-x. XXXX OSD Contractor SME Support Rates**

	MM/CY	Hours	Total
Position Title: Link 16 Expert 1	01/07	30	\$3,150.00
Function: Detailed Test Plan Annex Development/TTP training			
Position Title: Defense Intelligence Senior Threat Analysts	03/07	30	\$3,150.00
Function: Strategy Sessions			
<b>07 Subtotal</b>			<b>\$6,300.00</b>
Position Title: Link 16 Expert 2	06/08	50	\$5,500.00
Function: Review data analysis efforts			
<b>08 Subtotal</b>			<b>\$5,500.00</b>
Position Title: FAA Senior Controller	04/09	100	\$11,500.00
Function: Develop potential solution sets			
<b>09 Subtotal</b>			<b>\$11,500.00</b>
<b>Total</b>			<b>\$23,300.00</b>

#### **D.1.6.2.3 Contractor Staff Relocation Costs** (Show proposed contractor relocations.)

**Table D-x. XXXX OSD Contractor Staff Relocations**

FY	07	08	09	Total
1.6.2.3.1 Family	\$15,000	\$0	\$0	\$15,000
This is where you would put comments explaining the need.				
1.6.2.3.2 Individual	\$10,000	\$0	\$0	\$10,000
This is where you would put comments explaining the need.				
<b>Total</b>	<b>\$25,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$25,000</b>

#### **D.1.7 Program Modeling and Simulation** (M&S support at the program level supporting test activities and data analysis.)

**Table D-x. XXXX OSD Program Modeling and Simulation Cost Summary**

FY	07	08	09	Total
1.7.1 Development/Modification	\$200,000	\$0	\$0	\$200,000
1.7.2 Setup	\$3	\$0	\$0	\$3
1.7.3 Operation	\$50,000	\$100,000	\$50,000	\$200,000
<b>Total</b>	<b>\$250,003</b>	<b>\$100,000</b>	<b>\$50,000</b>	<b>\$400,003</b>

#### **D.1.8 Final Test Products** (Show the costs for the final test products to include development, supplies, printing, and distribution. Give a description of the type of test products you are planning.)



**Table D-x. XXXX OSD Final Test Product Costs**

FY	07	08	09	Total
<b>1.8.1 Handbooks/Guides/TTP</b>				
1.8.1.1 Development	\$0	\$0	\$1,000	\$1,000
1.8.1.2 Supplies	\$0	\$0	\$5,000	\$5,000
1.8.1.3 Printing	\$0	\$0	\$8,000	\$8,000
1.8.1.4 Distribution	\$0	\$0	\$2,500	\$2,500
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,500</b>	<b>\$16,500</b>
<b>1.8.2 Training Products</b>				
1.8.2.1 Development	\$0	\$0	\$1,000	\$1,000
1.8.2.2 Supplies	\$0	\$0	\$5,000	\$5,000
1.8.2.3 Printing	\$0	\$0	\$8,000	\$8,000
1.8.2.4 Distribution	\$0	\$0	\$2,500	\$2,500
<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,500</b>	<b>\$16,500</b>
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$33,000</b>	<b>\$33,000</b>

**D.2 Service Costs****D.2.1 Support Costs**

(Most support travel is OSD funded, but each Service usually cost shares JWAG travel by units funding their JWAG participants.)

**D.2.1.1 Administrative Travel Costs**

(Not applicable to Service costs.)

**D.2.1.2 TAG Travel and Support Costs**

(Not applicable to Service costs.)

**D.2.1.3 JWAG Travel and Support Costs**

(Most support travel is OSD funded, but each Service usually cost shares JWAG travel by units funding their JWAG participants. Sometimes the lead Service will host the JWAG meetings. Multi-Service participants will come from a wide variety of organizations and locations.)

**Table D-x. XXXX Service JWAG Personnel Travel**

FY	07	08	09	Total
<b>2.1.3.1 JWAG Personnel Travel</b>				
Gov Trl	\$769	\$0	\$0	\$769
Con Trl	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$769</b>	<b>\$0</b>	<b>\$0</b>	<b>\$769</b>
<b>2.1.3.2 JWAG Support</b>	<b>\$1,000</b>	<b>\$2,000</b>	<b>\$0</b>	<b>\$3,000</b>
<b>Total</b>	<b>\$1,769</b>	<b>\$2,000</b>	<b>\$0</b>	<b>\$3,769</b>

#### **D.2.1.4 GOSC Travel and Support Costs** (Not applicable to Service costs.)

#### **D.2.1.5 Symposia and/or Conference Travel and Support Costs** (Not applicable to Service costs.)

### **D.2.2 Automated Data Processing**

(The lead Service is responsible for providing desktop computers plus peripherals and laser printers.)

**Table D-x. XXXX Service Automated Data Processing Costs**

FY	07	08	09	Total
<b>2.2.1.1 Computers - Workstations</b>				
2.2.1.1.1 Hardware	\$96,000	\$0	\$0	\$96,000
PCs w/MS Office Software, (40 @ \$2400.00)				
2.2.1.1.5 UPS	\$13,000	\$0	\$0	\$13,000
APC Smart-UPS 700VA GSA (40 @ \$325.00)				
<b>Subtotal</b>	<b>\$109,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$109,000</b>
<b>2.2.2.1 Printers - Black &amp; White</b>				
2.2.2.1.1 Hardware	\$16,000	\$0	\$0	\$16,000
B/W Large HP LJ 9040 (1 @ \$10,000.00), BW/ small HP LJ 4240n (6 @ \$1,000.00)				
2.2.2.1.3 Consumables	\$12,240	\$12,240	\$12,240	\$36,720
Print cart for BW printers				
<b>Subtotal</b>	<b>\$28,240</b>	<b>\$12,240</b>	<b>\$12,240</b>	<b>\$52,720</b>
<b>2.2.2.2 Printers - Color</b>				
2.2.2.2.1 Hardware	\$8,000	\$0	\$0	\$8,000
HP Color LJ 4700 (2 @ \$4,000.00)				
2.2.2.2.3 Consumables	\$7,536	\$7,536	\$7,536	\$22,608
Print Cart.				
<b>Subtotal</b>	<b>\$15,536</b>	<b>\$7,536</b>	<b>\$7,536</b>	<b>\$30,608</b>
<b>2.2.2.3 Printers - Test/Data Special Support</b>				
2.2.2.3.1 Hardware	\$16,000	\$0	\$0	\$16,000
Copiers (2 @ \$5,500.00) Shredder (1 @ \$5,000.00)				
<b>Subtotal</b>	<b>\$16,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,000</b>
<b>Total</b>	<b>\$168,776</b>	<b>\$19,776</b>	<b>\$19,776</b>	<b>\$208,328</b>

### **D.2.3 Test Activities**

(Costs for planned test events are well-defined based on past lessons learned and site visits. Detailed costs will be refined during detailed test planning.)

**Table D-x. XXXX Service Test Cost Summary**

FY	07	08	09	Total
2.3.1 JXXXX RR-1	\$463	\$0	\$0	<b>\$463</b>
2.3.2 JXXXX MT-1	\$0	\$0	\$0	<b>\$0</b>
<b>Total</b>	<b>\$463</b>	<b>\$0</b>	<b>\$0</b>	<b>\$463</b>

**D.2.3.1 Test Event 1**  
 (Describe Test Event 1 Service costs.)

**Table D-x. XXXX Service Test Event 1 Cost Summary**

FY	07	08	09	Total
2.3.1.1 Test Preparation				
Gov Tvl	\$457	\$0	\$0	\$457
Non-Tvl	\$6	\$0	\$0	\$6
2.3.1.2 Range/Facility				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.3 Support Systems				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.4 Test Systems				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.5 Munitions/Pyrotechnics				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.6 Unique Instrumentation				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.7 Modeling & Simulation				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.8 Enhancements				
Non-Tvl	\$0	\$0	\$0	\$0
2.3.1.9 Interim Test Products				
Non-Tvl	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$463</b>	<b>\$0</b>	<b>\$0</b>	<b>\$463</b>

**D.2.3.X Test Event 2, 3 ...**  
 (Same as tables for Test Event 1.)

**D.2.4 Production Costs**  
 (Not applicable to Service costs.)

**D.2.5 Infrastructure**  
 (The sponsor will pay for basic infrastructure support.)

**Table D-x. XXXX Service Infrastructure Costs**

FY	07	08	09	Total
<b>2.5.1.1 Facilities - Real Property</b>				
2.5.1.1.1 Lease/Rent	\$9,999	\$9,800	\$9,999	\$29,798
2.5.1.1.2 Modifications	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$10,000</b>	<b>\$9,800</b>	<b>\$9,999</b>	<b>\$29,799</b>
<b>2.5.1.2 Facilities - Operating Expense</b>				
2.5.1.2.1 Management Fees	\$888	\$888	\$888	\$2,664
Comments go here				
2.5.1.2.2 Utilities	\$1	\$0	\$0	\$1
2.5.1.2.3 Waste Disposal	\$1	\$0	\$0	\$1
2.5.1.2.4 Custodial Services	\$1	\$0	\$0	\$1
2.5.1.2.5 Security	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$892</b>	<b>\$888</b>	<b>\$888</b>	<b>\$2,668</b>
<b>2.5.2.1 Supplies - Furnishings</b>				
2.5.2.1.1 Furniture	\$1	\$0	\$0	\$1
2.5.2.1.2 Modular Units	\$1	\$0	\$0	\$1
2.5.2.1.3 Audio/Visual Equipment	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$3</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3</b>
<b>2.5.2.2 Supplies - Consumables</b>				
2.5.2.2.1 Office Supplies	\$1	\$0	\$0	\$1
2.5.2.2.2 Janitor Supplies	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$2</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2</b>
<b>2.5.3.1 Telecom Equip - Telephone Desk Units</b>				
2.5.3.1.1 Hardware	\$1	\$0	\$0	\$1
2.5.3.1.2 Installation	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$2</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2</b>
<b>2.5.3.2 Telecom Equip - Cellular Devices</b>				
2.5.3.2.1 Hardware	\$1	\$0	\$0	\$1
2.5.3.2.2 Service Charges	\$1	\$0	\$0	\$1
2.5.3.2.3 Tolls	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$3</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3</b>
<b>Total</b>	<b>\$10,902</b>	<b>\$10,688</b>	<b>\$10,887</b>	<b>\$32,477</b>

**D.2.6 Government Personnel Costs**

(Personnel costs are broken out into government personnel costs (military and civilian) and contractor costs. Show government personnel required and the reimbursable rates.)

**Table D-x. XXXX Service Government Personnel Costs**

<b>Service</b>	<b>Position</b>	<b>Grade</b>	<b>MM/CY</b>	<b>FY 07</b>	<b>08</b>	<b>09</b>	<b>Total</b>
Air Force	Test Director	O-6	10/06-09/09	\$178,560	\$184,320	\$190,080	\$552,960
Air Force	Deputy Test Director	O-5	10/06-09/09	\$157,440	\$163,200	\$167,040	\$487,680
Air Force	USAF Coordinator	O-4	04/07-09/09	\$70,080	\$144,000	\$149,760	\$363,840
Air Force	Airborne C2	O-4	04/07-06/09	\$70,080	\$144,000	\$112,320	\$326,400
Air Force	Technical Director	GS-15	10/06-09/09	\$155,520	\$159,360	\$165,120	\$480,000
Air Force	Security Manager	GS-13	01/07-09/09	\$83,520	\$115,200	\$119,040	\$317,760
Air Force	Executive Assistant	GS-7	01/07-09/09	\$38,880	\$53,760	\$55,680	\$148,320
Army	Deputy Director Support & Financial Mgt	O-5	04/07-09/09	\$75,840	\$155,520	\$161,280	\$392,640
Army	Deputy Director Analysis & Reports	O-5	01/07-06/09	\$113,760	\$155,520	\$120,960	\$390,240
Army	USA Coordination	O-3	01/07-06/09	\$80,640	\$111,360	\$86,400	\$278,400
Army	Personnel	E-8	01/07-09/09	\$70,560	\$96,000	\$99,840	\$266,400
Army	Financial Analyst	GS-13	10/06-09/09	\$109,440	\$113,280	\$117,120	\$339,840
Marine Corps	USMC Coordinator	O-4	04/07-09/09	\$64,320	\$134,400	\$138,240	\$336,960
Navy	Deputy Director Ops/Training/Test	O-5	04/07-09/09	\$79,680	\$165,120	\$170,880	\$415,680
Navy	Logistics	E-8	01/07-09/09	\$72,000	\$99,840	\$103,680	\$275,520
Navy	Information Manager	E-8	01/07-06/09	\$72,000	\$99,840	\$77,760	\$249,600
<b>Total</b>				<b>\$1,492,320</b>	<b>\$2,094,720</b>	<b>\$2,035,200</b>	<b>\$5,622,240</b>

**D.3 Other (Service and/or COCOM or Other Agency) Costs**

(This "Other" category provides a means for costs that are not described in previous sections to be shown using similar format and table structures. A specific example would be United States Northern Command [USNORTHCOM] as the co-sponsoring agency picking up test travel costs that would typically be an OSD or the lead Service expenses.)

**D.4 Location and Facilities**

Describe the location where all members of the core JT staff will be located and the mailing address.)

## APPENDIX D-1 OSD COST DETAILS

### D-1.0 Introduction

(This appendix provides the assumptions the JT used to compute travel costs and gives additional details on OSD costs to include trip-by-trip tables corresponding to summary tables in annex D.)

### D-1.1 Travel Computation Assumptions

(Summarize your travel assumptions here to include airfare computations, rental cars, Pods, and so forth.)

### D-1.2 Staffing

**Table D-1-x. XXXX Staffing**

Period MMM CY	Marine Corps	Navy	Army	Air Force	Civilian	Gov Total	Contractors	Staff Total
Oct 06	0	0	0	2	2	4	12	16
Nov 06	0	0	0	2	2	4	12	16
Dec 06	0	0	0	2	2	4	12	16
Jan 07	0	2	3	2	4	11	15	26
Feb 07	0	2	3	2	4	11	15	26
Mar 07	0	2	3	2	4	11	15	26
Apr 07	1	3	4	4	4	16	15	31
May 07	1	3	4	4	4	16	15	31
Jun 07	1	3	4	4	4	16	15	31
Jul 07	1	3	4	4	4	16	15	31
Aug 07	1	3	4	4	4	16	15	31
Sep 07	1	3	4	4	4	16	15	31
Oct 07	1	3	4	4	4	16	15	31
Nov 07	1	3	4	4	4	16	15	31
Dec 07	1	3	4	4	4	16	15	31
Jan 08	1	3	4	4	4	16	15	31
Feb 08	1	3	4	4	4	16	15	31
Mar 08	1	3	4	4	4	16	15	31
Apr 08	1	3	4	4	4	16	15	31
May 08	1	3	4	4	4	16	15	31
Jun 08	1	3	4	4	4	16	15	31
Jul 08	1	3	4	4	4	16	15	31
Aug 08	1	3	4	4	4	16	15	31
Sep 08	1	3	4	4	4	16	15	31
Oct 08	1	3	4	4	4	16	15	31
Nov 08	1	3	4	4	4	16	15	31
Dec 08	1	3	4	4	4	16	15	31
Jan 09	1	3	4	4	4	16	15	31
Feb 09	1	3	4	4	4	16	15	31
Mar 09	1	3	4	4	4	16	15	31
Apr 09	1	3	4	4	4	16	11	27
May 09	1	3	4	4	4	16	11	27
Jun 09	1	3	4	4	4	16	11	27
Jul 09	1	2	2	3	4	12	6	18
Aug 09	1	2	2	3	4	12	6	18
Sep 09	1	2	2	3	4	12	6	18

**D-1.3 Itemized Costs****Table D-1-x. XXXX OSD Administrative Travel Costs**

Comments: This is some comments to see what the report looks like. You would put your comment here. You would put your comment here. You would put your comment here. You would put your comment here.

Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total
FY 07												
JTD Support - Contractor												
Reason: MOA/MOU												
From: VA, Richmond												
To: FL, ORLANDO	2	2	2	\$153	\$1,224	\$1,200	\$4,800	1	\$25	\$100	\$145	\$6,269
JTD Support - Government												
Reason: TTP/MOA Development												
From: VA, Richmond												
To: AK, ELMENDORF AFB	2	3	1	\$264	\$1,584	\$1,950	\$3,900	1	\$50	\$150	\$86	\$5,720
JTD Support											Subtotal	\$11,989
Research - Government												
Reason: To find out something.												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$77	\$437
Research - Contractor												
Reason: To find out something.												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$77	\$437
Research											Subtotal	\$874
JPO Meetings - Government												
Reason: Test Dir/Tech Dir Meeting												
From: VA, Richmond												
To: VA, NORFOLK	2	3	1	\$176	\$1,056	\$782	\$1,564	1	\$25	\$75	\$86	\$2,781
JPO Meetings - Contractor												
Reason: Test Dir/Tech Dir Meeting												
From: VA, Richmond												
To: VA, NORFOLK	2	3	1	\$176	\$1,056	\$782	\$1,564	1	\$25	\$75	\$86	\$2,781
JPO Meetings											Subtotal	\$5,562
Coordination - Contractor												
Reason: Product Transition/Development												
From: VA, Richmond												
To: WA, BANGOR	2	2	4	\$256	\$4,096	\$750	\$6,000	1	\$32	\$256	\$176	\$10,528
Coordination - Government												
Reason: MOA/MOU Coordination												
From: VA, Richmond												
To: NV, NELLIS AFB	2	3	2	\$180	\$2,160	\$658	\$2,632	1	\$30	\$180	\$173	\$5,145
Coordination											Subtotal	\$15,673
FY 07											Subtotal	\$34,098
FY 08												
JPO Meetings - Contractor												
Reason: Test Dir/Tech Dir Meeting												
From: VA, Richmond												
To: VA, NORFOLK	2	3	1	\$180	\$1,080	\$798	\$1,596	1	\$26	\$78	\$86	\$2,840
JPO Meetings											Subtotal	\$2,840
FY 08											Subtotal	\$2,840
FY 09												
JPO Meetings - Contractor												
Reason: Test Dir/Tech Dir Meeting												
From: VA, Richmond												
To: VA, NORFOLK	2	3	1	\$183	\$1,098	\$815	\$1,630	1	\$26	\$78	\$86	\$2,892
JPO Meetings											Subtotal	\$2,892
FY 09											Subtotal	\$2,892
Total											\$39,830	

**Table D-1-x. XXXX OSD TAG Personnel Travel**

This is where your comment goes. This trip was put in so report would print.													
Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total	
<b>FY 07</b>													
Government													
Reason: We are flying somewhere to somewhere. I think this is going to be the best trip ever.													
From: VA, Somewhere													
To: WA, Somewhere	1	2	1	\$133	\$266	\$200	\$200	1	\$50	\$100	\$69	\$635	
											<b>FY 07 Subtotal</b>	<b>\$635</b>	
<b>FY 08</b>													
Government													
From: VA, Richmond													
To: VA, NORFOLK	1	2	1	\$180	\$360	\$798	\$798	1	\$26	\$52	\$69	\$1,279	
											<b>FY 08 Subtotal</b>	<b>\$1,279</b>	
<b>FY 09</b>													
Government													
From: VA, Richmond													
To: VA, NORFOLK	1	2	1	\$183	\$366	\$815	\$815	1	\$26	\$52	\$69	\$1,302	
											<b>FY 09 Subtotal</b>	<b>\$1,302</b>	
												<b>Total</b>	<b>\$3,216</b>

**Table D-1-x. XXXX OSD TAG Support Costs**

	FY	07	08	09	Total
<b>1.1.2.2 TAG Support</b>					
Just to make this show on the reports, I put in \$1					
1.1.2.2.1 Material		\$1	\$0	\$0	\$1
<b>Total</b>		<b>\$1</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1</b>

**Table D-1-x. XXXX OSD JWAG Personnel Travel**

Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total	
<b>FY 07</b>													
Test Review - Government													
Reason: Government Support													
From: VA, Richmond													
To: WA, Somewhere	2	2	2	\$180	\$1,440	\$658	\$2,632	1	\$30	\$120	\$290	\$4,482	
											<b>FY 07 Subtotal</b>	<b>\$4,482</b>	
<b>FY 08</b>													
Test Review - Government													
Reason: Government Support													
From: VA, Richmond													
To: WA, Somewhere	2	2	1	\$184	\$736	\$672	\$1,344	1	\$31	\$62	\$72	\$2,214	
											<b>FY 08 Subtotal</b>	<b>\$2,214</b>	
<b>FY 09</b>													
Report Coordination - Government													
Reason: Government Support													
From: VA, Richmond													
To: WA, Somewhere	2	2	1	\$188	\$752	\$686	\$1,372	1	\$31	\$62	\$72	\$2,258	
											<b>FY 09 Subtotal</b>	<b>\$2,258</b>	
												<b>Total</b>	<b>\$8,954</b>



**Table D-1-x. XXXX OSD JWAG Support Costs**

FY	07	08	09	Total
<b>1.1.3.2 JWAG Support</b>				
1.1.3.2.1 Material	\$500	\$1,000	\$1,000	\$2,500
Costs associated with any flyers/binders information given out at JWAG				
<b>Total</b>	<b>\$500</b>	<b>\$1,000</b>	<b>\$1,000</b>	<b>\$2,500</b>

**Table D-1-x. XXXX OSD GOSC Personnel Travel**

Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total
<b>FY 07</b>												
Test Progress - Government												
Reason: GOSC Travel												
From: VA, Richmond												
To: WA, Somewhere	4	2	1	\$256	\$2,048	\$750	\$3,000	2	\$32	\$128	\$145	\$5,321
											<b>FY 07 Subtotal</b>	<b>\$5,321</b>
<b>FY 08</b>												
Test Progress - Government												
Reason: GOSC Travel												
From: VA, Richmond												
To: WA, Somewhere	4	2	2	\$261	\$4,176	\$766	\$6,128	2	\$33	\$264	\$290	\$10,858
											<b>FY 08 Subtotal</b>	<b>\$10,858</b>
<b>FY 09</b>												
Report Coordination - Government												
Reason: GOSC Travel												
From: VA, Richmond												
To: WA, Somewhere	4	2	1	\$267	\$2,136	\$782	\$3,128	2	\$33	\$132	\$145	\$5,541
											<b>FY 09 Subtotal</b>	<b>\$5,541</b>
											<b>Total</b>	<b>\$21,720</b>

**Table D-1-x. XXXX OSD GOSC Support Costs**

FY	07	08	09	Total
<b>1.1.4.2 GOSC Support</b>				
1.1.4.2.1 Material	\$200	\$400	\$400	\$1,000
1.1.4.2.2 Transport	\$100	\$50	\$50	\$200
<b>Total</b>	<b>\$300</b>	<b>\$450</b>	<b>\$450</b>	<b>\$1,200</b>

**Table D-1-x. XXXX OSD Symposia and/or Conference Travel**

Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total
<b>FY 07</b>												
Government												
Reason: Air Warfare Symposium												
From: FL, Fort Walton Beach												
To: FL, ORLANDO	2	3	1	\$153	\$918	\$1,200	\$2,400	1	\$25	\$75	\$86	\$3,479
Government												
Reason: C2 Research and Technology Symposium												
From: FL, Fort Walton Beach												
To: CA, SAN DIEGO	2	4	1	\$195	\$1,560	\$958	\$1,916	1	\$35	\$140	\$145	\$3,761
											<b>FY 07 Subtotal</b>	<b>\$7,240</b>
<b>FY 08</b>												
Government												
Reason: Air Warfare Symposium												
From: FL, Fort Walton Beach												
To: FL, ORLANDO	2	3	1	\$156	\$936	\$1,225	\$2,450	1	\$26	\$78	\$86	\$3,550
Government												
Reason: C2 Research and Technology Symposium												
From: FL, Fort Walton Beach												
To: CA, SAN DIEGO	2	4	1	\$199	\$1,592	\$978	\$1,956	1	\$36	\$144	\$145	\$3,837
											<b>FY 08 Subtotal</b>	<b>\$7,387</b>
<b>FY 09</b>												
Government												
Reason: Air Warfare Symposium												
From: FL, Fort Walton Beach												
To: FL, ORLANDO	2	3	1	\$159	\$954	\$1,251	\$2,502	1	\$26	\$78	\$86	\$3,620
Government												
Reason: C2 Research and Technology Symposium												
From: FL, Fort Walton Beach												
To: CA, SAN DIEGO	2	4	1	\$203	\$1,624	\$999	\$1,998	1	\$36	\$144	\$145	\$3,911
											<b>FY 09 Subtotal</b>	<b>\$7,531</b>
											<b>Total</b>	<b>\$22,158</b>

**Table D-1-x. XXXX OSD Symposia and/or Conference Support Costs**

	FY	07	08	09	Total
<b>1.1.5.2 Sym/Conf Support</b>					
1.1.5.2.1 Material		\$500	\$500	\$500	\$1,500
Material charges for any handouts cd's ect.					
1.1.5.2.2 Transport		\$500	\$500	\$500	\$1,500
1.1.5.2.3 Fees		\$600	\$600	\$600	\$1,800
<b>Total</b>		<b>\$1,600</b>	<b>\$1,600</b>	<b>\$1,600</b>	<b>\$4,800</b>

**Table D-1-x. XXXX OSD Automated Data Processing Costs**

FY	07	08	09	Total
<b>1.2.1.1 Computers - Workstations</b>				
1.2.1.1.1 Hardware	\$15,375	\$0	\$0	\$15,375
Data Management Workstations, Dell Precision 670 w/19" monitor (5 each)				
<b>Subtotal</b>	<b>\$15,375</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,375</b>
<b>1.2.1.2 Computers - Network &amp; Servers</b>				
1.2.1.3.1 Hardware	\$46,400	\$0	\$0	\$46,400
Dell Power Server w/RAID router/switch/cabling/ups data center (1 each)				
1.2.1.3.2 Software	\$3,000	\$0	\$0	\$3,000
Back-up Software				
1.2.1.3.4 Maintenance	\$2,400	\$2,400	\$2,400	\$7,200
<b>Subtotal</b>	<b>\$51,800</b>	<b>\$2,400</b>	<b>\$2,400</b>	<b>\$56,600</b>
<b>1.2.2.1 Printers - Black &amp; White</b>				
1.2.2.1.1 Hardware	\$1,000	\$0	\$0	\$1,000
HP LJ 4240n				
1.2.2.1.3 Consumables	\$1,800	\$1,800	\$1,800	\$5,400
Printer Cart.				
<b>Subtotal</b>	<b>\$2,800</b>	<b>\$1,800</b>	<b>\$1,800</b>	<b>\$6,400</b>
<b>1.2.2.2 Printers - Color</b>				
1.2.2.2.1 Hardware	\$2,000	\$0	\$0	\$2,000
HP Color LJ 4700				
1.2.2.2.3 Consumables	\$3,768	\$3,768	\$3,768	\$11,304
Printer Cart.				
<b>Subtotal</b>	<b>\$5,768</b>	<b>\$3,768</b>	<b>\$3,768</b>	<b>\$13,304</b>
<b>1.2.2.3 Printers - Test/Data Special Support</b>				
1.2.2.3.1 Hardware	\$8,795	\$0	\$0	\$8,795
HP Designjet 5500 (1each)				
1.2.2.3.2 Maintenance	\$2,400	\$0	\$0	\$2,400
3yr Maint Contract				
1.2.2.3.3 Consumables	\$11,184	\$11,184	\$11,184	\$33,552
Printer Cart/paper				
<b>Subtotal</b>	<b>\$22,379</b>	<b>\$11,184</b>	<b>\$11,184</b>	<b>\$44,747</b>
<b>1.2.3.1 Electronic Data Collection - Portable Devices</b>				
1.2.3.1.1 Hardware	\$24,000	\$0	\$0	\$24,000
Dell Latitude 610 Notebooks (10 each)				
<b>Subtotal</b>	<b>\$24,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$24,000</b>
<b>1.2.3.3 Electronic Data Collection - Digital Cameras</b>				
1.2.3.3.1 Hardware	\$1,500	\$0	\$0	\$1,500
Nikon D50 (3 each)				
1.2.3.3.4 Batteries	\$100	\$100	\$100	\$300
1.2.3.3.5 Media	\$100	\$100	\$100	\$300
Data Stick				
<b>Subtotal</b>	<b>\$1,700</b>	<b>\$200</b>	<b>\$200</b>	<b>\$2,100</b>
<b>1.2.3.5 Electronic Data Collection - Storage Devices</b>				
1.2.3.5.1 Hardware	\$2,200	\$0	\$0	\$2,200
USB Jump Drives (10 each)				
<b>Subtotal</b>	<b>\$2,200</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,200</b>
<b>Total</b>	<b>\$126,022</b>	<b>\$19,352</b>	<b>\$19,352</b>	<b>\$164,726</b>

**Provide applicable tables here.**

1.3.1.1 JXXXX RR-1 Test Preparation Costs				
FY	07	08	09	Total
1.3.1.1.1 Test Preparation - Site Preparation				
1.3.1.1.1.1 Environmental Studies	\$1	\$0	\$0	\$1
1.3.1.1.1.2 Civil Engineering	\$1	\$1	\$0	\$2
1.3.1.1.1.3 Instrumentation	\$1	\$0	\$0	\$1
1.3.1.1.1.4 TSPI Modifications	\$1	\$0	\$0	\$1
1.3.1.1.1.5 Special Communications	\$1	\$1	\$0	\$2
1.3.1.1.1.6 Safety Surveys	\$1	\$0	\$0	\$1
Total	\$6	\$2	\$0	\$8

<b>1.3.1.1.2 JXXXX OSD RR-1 Test Preparation - Planning/Coordination Travel Costs</b>												
<b>Location</b>	<b># Pers</b>	<b># Days</b>	<b># Trips</b>	<b>Per Diem</b>	<b>Tot Per Diem</b>	<b>Airfare</b>	<b>Tot Airfare</b>	<b># Cars</b>	<b>Rental Rate</b>	<b>Tot Rental</b>	<b>PA</b>	<b>Total</b>
<b>FY 07</b>												
Reason: Mid Planning Conf - Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$59	\$419
Reason: Mid Planning Conf - Contractor												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	0	\$50	\$0	\$59	\$369
Reason: Initial Planning Conf - Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$59	\$419
Reason: Initial Planning Conf - Contractor												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	0	\$50	\$0	\$59	\$369
											<b>FY 07 Subtotal</b>	<b>\$1,576</b>
<b>FY 08</b>												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$112	\$112	\$204	\$204	1	\$51	\$51	\$59	\$426
											<b>FY 08 Subtotal</b>	<b>\$426</b>
<b>FY 09</b>												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$115	\$115	\$208	\$208	1	\$52	\$52	\$59	\$434
											<b>FY 09 Subtotal</b>	<b>\$434</b>
											<b>Total</b>	<b>\$2,436</b>

**1.3.1.1.3 JXXXX OSD RR-1 Test Preparation - Data Collector Training/Coordination Travel Costs**

Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total
FY 07												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$59	\$419
Contractor												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	0	\$50	\$0	\$59	\$369
FY 07 Subtotal											\$788	
FY 08												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$112	\$112	\$204	\$204	1	\$51	\$51	\$59	\$426
FY 08 Subtotal											\$426	
FY 09												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$115	\$115	\$208	\$208	1	\$52	\$52	\$59	\$434
FY 09 Subtotal											\$434	
Total											\$1,648	

**1.3.1.2 JXXXX RR-1 Range/Facility Costs**

	FY	07	08	09	Total
<b>1.3.1.2.1 Range/Facility - Range</b>					
1.3.1.2.1.1 Range Usage Fee		\$2	\$0	\$0	\$2
1.3.1.2.1.2 Security (Additional)		\$2	\$0	\$0	\$2
1.3.1.2.1.3 Controllers (Additional)		\$2	\$0	\$0	\$2
1.3.1.2.1.4 Data Reduction & Storage/Access		\$2	\$0	\$0	\$2
1.3.1.2.1.5 Base Operating Support		\$2	\$0	\$0	\$2
<b>1.3.1.2.2 Range/Facility - Facility</b>					
1.3.1.2.2.1 Facility Usage Fee		\$2	\$0	\$0	\$2
1.3.1.2.2.2 Communications Modifications/Linkage		\$2	\$0	\$0	\$2
1.3.1.2.2.3 Security (Additional)		\$2	\$0	\$0	\$2
1.3.1.2.2.4 Data Reduction & Storage/Access		\$2	\$0	\$0	\$2
1.3.1.2.2.5 Base Operating Support		\$2	\$0	\$0	\$2
<b>Total</b>		<b>\$20</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20</b>

**1.3.1.3 JXXXX RR-1 Support Systems Costs**

	FY	07	08	09	Total
<b>1.3.1.3.1 Support Systems - Surrogates Systems</b>					
1.3.1.3.1.1 Lease/Operating Cost		\$3	\$0	\$0	\$3
<b>1.3.1.3.2 Support Systems - RED (Threat) Systems</b>					
1.3.1.3.2.1 Lease/Operating Cost		\$3	\$0	\$0	\$3
<b>1.3.1.3.3 Support Systems - Blue (Friendly) Systems</b>					
1.3.1.3.3.1 Lease/Operating Cost		\$3	\$0	\$0	\$3
<b>1.3.1.3.4 Support Systems - Targets</b>					
1.3.1.3.4.1 Lease/Operating Cost		\$3	\$0	\$0	\$3
<b>Total</b>		<b>\$12</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12</b>

<b>1.3.1.4 JXXXX RR-1 Test Systems Costs</b>				
FY	07	08	09	Total
<b>1.3.1.4.1 Test Systems - Flying Hours</b>				
1.3.1.4.1.1 Industrially Funded	\$4	\$0	\$0	\$4
1.3.1.4.1.2 Non-Industrially Funded	\$4	\$0	\$0	\$4
1.3.1.4.1.3 T-Coded Aircraft	\$4	\$0	\$0	\$4
<b>1.3.1.4.2 Test Systems - Modifications</b>				
1.3.1.4.2.1 TYPE II/IV	\$4	\$0	\$0	\$4
1.3.1.4.2.2 BUS	\$4	\$0	\$0	\$4
<b>1.3.1.4.3 Test Systems - Instrumentation Transport</b>				
1.3.1.4.3.1 AIS Pods	\$4	\$0	\$0	\$4
1.3.1.4.3.2 RFMDS/GPS Pods	\$4	\$0	\$0	\$4
1.3.1.4.3.3 GPS Receivers	\$4	\$0	\$0	\$4
<b>Total</b>	<b>\$32</b>	<b>\$0</b>	<b>\$0</b>	<b>\$32</b>

<b>1.3.1.5 JXXXX RR-1 Munitions/Pyrotechnics Costs</b>				
FY	07	08	09	Total
<b>1.3.1.5.1 Munitions/Pyrotechnics - Unique</b>				
1.3.1.5.1.1 Development/Modification	\$0	\$2	\$0	\$2
1.3.1.5.1.2 Transport	\$0	\$2	\$0	\$2
1.3.1.5.1.3 Special Support	\$0	\$2	\$0	\$2
1.3.1.5.1.4 Security	\$0	\$2	\$0	\$2
<b>1.3.1.5.2 Munitions/Pyrotechnics - Table of Allowance</b>				
1.3.1.5.2.1 Transport	\$1	\$1	\$1	\$3
1.3.1.5.2.2 Security	\$1	\$1	\$1	\$3
<b>Total</b>	<b>\$2</b>	<b>\$10</b>	<b>\$2</b>	<b>\$14</b>

<b>1.3.1.6 JXXXX RR-1 Unique Instrumentation Costs</b>				
FY	07	08	09	Total
<b>1.3.1.6.1 Unique Instrumentation - Transportable</b>				
1.3.1.6.1.1 Hardware	\$1	\$1	\$0	\$2
1.3.1.6.1.2 Engineering Services	\$1	\$0	\$0	\$1
1.3.1.6.1.3 Netting/Linking	\$1	\$0	\$0	\$1
1.3.1.6.1.4 Integration	\$1	\$0	\$0	\$1
1.3.1.6.1.5 Validation	\$1	\$0	\$0	\$1
1.3.1.6.1.6 Lease/Operating Cost	\$1	\$0	\$0	\$1
1.3.1.6.1.7 Modification	\$1	\$0	\$0	\$1
1.3.1.6.1.8 Teardown and Reconfiguration	\$1	\$0	\$0	\$1
1.3.1.6.1.9 Transportation	\$1	\$0	\$0	\$1
<b>1.3.1.6.2 Unique Instrumentation - Fixed</b>				
1.3.1.6.2.1 Hardware	\$0	\$1	\$0	\$1
1.3.1.6.2.2 Engineering Services	\$0	\$1	\$0	\$1
1.3.1.6.2.3 Netting/Linking	\$0	\$1	\$0	\$1
1.3.1.6.2.4 Integration	\$0	\$1	\$0	\$1
1.3.1.6.2.5 Download/Reduction	\$0	\$1	\$0	\$1
1.3.1.6.2.6 Modification	\$0	\$1	\$0	\$1
1.3.1.6.2.7 Lease/Operating Cost	\$0	\$1	\$0	\$1
<b>Total</b>	<b>\$9</b>	<b>\$8</b>	<b>\$0</b>	<b>\$17</b>

<b>1.3.1.7 JXXXX RR-1 Modeling &amp; Simulation Costs</b>				
FY	07	08	09	Total
<b>1.3.1.7.1 Modeling &amp; Simulation - Development/Modification</b>				
1.3.1.7.1.1 Hardware	\$1	\$0	\$0	\$1
1.3.1.7.1.2 Engineering Services	\$1	\$0	\$0	\$1
1.3.1.7.1.3 Technical Support	\$1	\$0	\$0	\$1
1.3.1.7.1.4 Integration	\$1	\$0	\$0	\$1
1.3.1.7.1.10 Licenses	\$1	\$0	\$0	\$1
1.3.1.7.1.11 Maintenance	\$1	\$0	\$0	\$1
1.3.1.7.1.12 Facility Fees	\$1	\$0	\$0	\$1
1.3.1.7.1.13 Lease/Operation Cost	\$1	\$0	\$0	\$1
<b>1.3.1.7.2 Modeling &amp; Simulation - Range/Facility</b>				
1.3.1.7.2.1 Hardware	\$1	\$0	\$0	\$1
1.3.1.7.2.2 Engineering Services	\$1	\$0	\$0	\$1
1.3.1.7.2.3 Netting/Linking	\$1	\$0	\$0	\$1
1.3.1.7.2.4 Integration	\$1	\$0	\$0	\$1
1.3.1.7.2.5 Validation	\$1	\$0	\$0	\$1
1.3.1.7.2.6 Training	\$1	\$0	\$0	\$1
<b>Total</b>	<b>\$14</b>	<b>\$0</b>	<b>\$0</b>	<b>\$14</b>

<b>1.3.1.8.1 JXXXX OSD RR-1 Enhancements - Selection and Coordination Travel Costs</b>												
Location	# Pers	# Days	# Trips	Per Diem	Tot Per Diem	Airfare	Tot Airfare	# Cars	Rental Rate	Tot Rental	PA	Total
<b>FY 07</b>												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	1	1	\$110	\$110	\$200	\$200	1	\$50	\$50	\$77	\$437
<b>FY 07 Subtotal</b>											<b>\$437</b>	
<b>Total</b>											<b>\$437</b>	

<b>1.3.1.8 JXXXX RR-1 Enhancements Costs</b>				
FY	07	08	09	Total
<b>1.3.1.8.2 Enhancements - Implementation</b>				
1.3.1.8.2.1 Hardware	\$1	\$0	\$0	\$1
1.3.1.8.2.2 Software	\$1	\$0	\$0	\$1
1.3.1.8.2.3 Training	\$1	\$0	\$0	\$1
1.3.1.8.2.4 Netting/Linking	\$1	\$0	\$0	\$1
1.3.1.8.2.5 Validate	\$1	\$0	\$0	\$1
1.3.1.8.2.6 Document	\$1	\$0	\$0	\$1
1.3.1.8.2.7 Maintenance	\$1	\$0	\$0	\$1
<b>Subtotal</b>	<b>\$7</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7</b>
<b>Total</b>	<b>\$7</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7</b>

1.3.1.9 JXXXX RR-1 Interim Test Products Costs				
FY	07	08	09	Total
1.3.1.9.1 Interim Test Products - Handbooks/Guides/TTP				
1.3.1.9.1.1 Development	\$1	\$0	\$0	\$1
1.3.1.9.1.2 Supplies	\$1	\$0	\$0	\$1
1.3.1.9.1.3 Printing	\$1	\$0	\$0	\$1
1.3.1.9.1.4 Distrubution	\$1	\$0	\$0	\$1
Subtotal	\$4	\$0	\$0	\$4
1.3.1.9.2 Interim Test Products - Training Products				
1.3.1.9.2.1 Development	\$1	\$0	\$0	\$1
1.3.1.9.2.2 Supplies	\$1	\$0	\$0	\$1
1.3.1.9.2.3 Printing	\$1	\$0	\$0	\$1
1.3.1.9.2.4 Distrubution	\$1	\$0	\$0	\$1
Subtotal	\$4	\$0	\$0	\$4
Total	\$8	\$0	\$0	\$8

<b>1.3.1.10.1 JXXXX OSD RR-1 Test Execution Travel - Test Team Costs</b>												
<b>Location</b>	<b># Pers</b>	<b># Days</b>	<b># Trips</b>	<b>Per Diem</b>	<b>Tot Per Diem</b>	<b>Airfare</b>	<b>Tot Airfare</b>	<b># Cars</b>	<b>Rental Rate</b>	<b>Tot Rental</b>	<b>PA</b>	<b>Total</b>
<b>FY 07</b>												
Government												
From: VA, Somewhere												
To: NV, Somewhere	10	5	1	\$112	\$5,600	\$200	\$2,000	5	\$50	\$1,250	\$99	\$8,949
<b>FY 07 Subtotal</b>												<b>\$8,949</b>
<b>Total</b>												<b>\$8,949</b>

<b>1.3.1.10.7 JXXXX OSD RR-1 Test Execution Travel - Instrumentation Support Costs</b>												
<b>Location</b>	<b># Pers</b>	<b># Days</b>	<b># Trips</b>	<b>Per Diem</b>	<b>Tot Per Diem</b>	<b>Airfare</b>	<b>Tot Airfare</b>	<b># Cars</b>	<b>Rental Rate</b>	<b>Tot Rental</b>	<b>PA</b>	<b>Total</b>
<b>FY 07</b>												
Government												
From: VA, Somewhere												
To: NV, Somewhere	1	2	1	\$110	\$220	\$200	\$200	1	\$50	\$100	\$94	\$614
<b>FY 07 Subtotal</b>												<b>\$614</b>
<b>Total</b>												<b>\$614</b>



**Table D-1-x. XXXX OSD Program M&S Costs**

FY	07	08	09	Total
<b>1.7.1 Development/Modification</b>				
1.7.1.2 Software	\$200,000	\$0	\$0	\$200,000
Specialty software				
Subtotal	\$200,000	\$0	\$0	\$200,000
<b>1.7.2 Setup</b>				
1.7.2.1 Netting/Linking	\$1	\$0	\$0	\$1
1.7.2.2 Verification	\$1	\$0	\$0	\$1
1.7.2.3 Validation	\$1	\$0	\$0	\$1
Subtotal	\$3	\$0	\$0	\$3
<b>1.7.3 Operation</b>				
1.7.3.3 Demonstration/Spinup	\$25,000	\$50,000	\$25,000	\$100,000
1.7.3.4 Test Accreditation	\$25,000	\$50,000	\$25,000	\$100,000
Subtotal	\$50,000	\$100,000	\$50,000	\$200,000
Total	\$250,003	\$100,000	\$50,000	\$400,003

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## **ANNEX E FORMAL AGREEMENTS**

### **E.0 Introduction**

(The JT should describe and include as appendices any MOAs for usage of test exercises or other agreements with external organizations providing support for the JT.)

### **E.1 Host/Tenant Agreement**

### **E.2 Other Agreement**

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## APPENDIX E-1 HOST/TENANT AGREEMENT

### MEMORANDUM OF AGREEMENT

Between

NOTIONAL ORGANIZATION

and

PROJECT NAME (XXXX)

JOINT TEST (JT)

City, State

1. **PURPOSE.** This memorandum outlines and identifies responsibilities between the Notional Organization and the Project Name (XXXX) Joint Test (JT). This agreement allows personnel from each organization to collaborate to accomplish sufficient planning and coordination to meet the mission and objectives of both organizations.

2. **AUTHORITY.** Department of Defense Instruction (DODI) 5010.41, *Joint Test and Evaluation (JT&E) Program*.

3. **GENERAL.** XXXX is an Office of the Secretary of Defense managed program that reports to the Deputy Director, Air Warfare, Operational Test and Evaluation Directorate. The purpose of the JT&E Program is to bring two or more Services together to assess the interoperability of Service systems in joint operations and to explore potential solutions to identified joint warfighter problems. The program is meant to find ways for warfighters to do their jobs better with today's equipment, organization, and doctrine.

4. **SCOPE.** The XXXX Joint Test Director and the Commander of Notional Organization recognize that both organizations will benefit from collaboration and participation in meetings, lab and exercise events, and other information exchange opportunities. To this end, both will appoint a representative to administer and coordinate this agreement.

#### 5. RESPONSIBILITIES.

a. Notional Organization agrees to provide:

- Notification of and invitation to test or exercise event planning and coordination meetings
- Participation in test or exercise event planning processes
- Access to assets through the scheduling and prioritization process
- Identification of test or exercise event cost data
- Liaison opportunities to influence test or exercise events to meet the data collection needs of the JT

- Access to information regarding models, simulations, exercise directives, and scenario plans
- Advice on the optimum collection and analysis of data
- Feedback after test and exercise events
- Access to relevant documents to facilitate planning and coordination
- Considerations regarding test or exercise event security and other administrative matters

b. XXXX agrees to provide:

- Notification of and invitation to test event planning and coordination meetings
- Invitation to Joint Warfighter Advisory Group meetings
- Invitation to Technical Advisory Group meetings (if a TAG is established)
- Plans for funding of test events
- Feedback after test events
- Access to relevant documents to facilitate planning and coordination
- Considerations regarding test event security and other administrative matters

## 6. AGREEMENT AND ADMINISTRATION.

a. Effective Date. This agreement is effective upon signature of both parties.

b. Changes. Both parties will review this agreement annually. Either party may amend this agreement by mutual agreement. Either party may formally terminate this agreement by written notification.

c. Expiration date. This agreement will remain in effect until superseded, rescinded, or upon completion of the JT.

d. The provisions of this agreement apply to Notional Organization and XXXX.

First MI. Last	First MI. Last
Rank, Service	Rank, Service
Title	Joint Test Director
Notional Organization	XXXX JT

Signature	Date	Signature	Date
-----------	------	-----------	------

## **ANNEX F ARMY OUTLINE TEST PLAN (OTP)**

(If only manpower support is requested, an OTP is not required. In that case, include the following under the annex title: An Army Outline Test Plan (OTP) is not required for the Project Name (XXXX) Joint Test (JT).)

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**APPENDIX F-1 ARMY OUTLINE TEST PLAN (OTP)****ARMY OUTLINE TEST PLAN (OTP)****Project Name (XXXX)****2006-JTE-XXXX****GENERAL TEST DATA**

<b>Tester:</b>	<b>Lead Service</b>		
<b>Evaluator:</b>	<b>OSD</b>		
<b>Test Type:</b>	<b>JOINT TEST (JT)</b>		
<b>AcqMIs Supported:</b>	<b>N/A</b>		
<b>ACAT:</b>	<b>N/A</b>		
<b>Decision Review:</b>	<b>In-Process Review (IPR)</b>		
<b>DOD Oversight:</b>	<b>OSD JT&amp;E Program Office</b>		
<b>Type Report:</b>	<b>JT</b>		
<b>DA Staff Proponent:</b>	<b>N/A</b>		
<b>TEMP Status:</b>	<b>N/A</b>		
<b>Combat Developer:</b>	<b>N/A</b>		
<b>Materiel Developer:</b>	<b>N/A</b>		
<b>Test Organization:</b>	<b>Lead Service</b>		
<b>Test Unit:</b>	<b>N/A</b>		
<b>Test Location:</b>	<b>City, State</b>		
<b>Test Dates -</b>	<b>Start:</b>	<b>3rd QTR FY 06</b>	
	<b>End:</b>	<b>3rd QTR FY 09</b>	
	<b>Resource:</b>	<b>ARMY MANPOWER TO CONDUCT XXXX JT</b>	
<b>Requirements:</b>	<b>Ammo:</b>	<b>NA</b>	<b>AvHrs:</b> <b>NA</b>
	<b>Sim:</b> <b>NA</b>	<b>Tgt:</b> <b>NA</b>	<b>ThtSim:</b> <b>NA</b>
<b>IMA Support:</b>	<b>none</b>		
<b>OTP Cost Summary:</b>	<b>Funder</b>	<b>Appn</b>	<b>FY 2006</b>
	<b>Total Cost</b>		

**1. Notes:**

Two (2) Army personnel will be required to provide the necessary subject matter expertise to conduct the Project Name (XXXX) Joint Test (JT). There are no other requests listed in this document. The personnel will be co-located with the JT team at City, State. Request all personnel relocate from 3rd QTR FY 06 to 3rd QTR FY 09. Request 1-Grade MOS ### and 1-Grade MOS ###.

## **Section I**

### **TEST NARRATIVE INFORMATION**

#### **1. REFERENCES.**

##### **a. Requirement/Tasking Documents.**

The Director, Operational Test and Evaluation (DOT&E) chartered the XXXX JT with the Lead Service as the lead Service on February 15, 2006. (See attached charter document.)

##### **b. Test and Evaluation Master Plan (TEMP).**

N/A

##### **c. Waivers.**

N/A

##### **d. Previous Testing.**

None

##### **e. Planned Future Tests.**

Copy from chapter 2

#### **2. PURPOSE AND FUNCTIONAL DESCRIPTION.**

##### **a. Purpose.**

Copy from chapter 1

##### **b. Functional Description.**

Copy from chapter 1

#### **3. CRITICAL OPERATIONAL ISSUES.**

Copy from chapter 1

#### **4. SCOPE AND TACTICAL CONTEXT.**

##### **a. Scope.**

Copy from chapter 1

##### **b. Tactical Context.**

Copy from chapter 1

#### **5. IMPACT STATEMENTS.**

##### **a. Environmental, Laser and Energy.**

N/A

b. Training Implications.

N/A

c. SIGSEC/OPSEC Implications.

N/A

d. Radionuclide Certification.

N/A

e. Human Volunteers.

N/A

## **6. OTHER RESOURCES REQUIRED.**

a. Support Packages.

N/A

b. MANPRINT Requirements.

N/A

c. System Safety (Requirements/Releases).

N/A

d. Photographic Support.

N/A

e. Contractor Studies/Support.

N/A

f. Meteorological Support.

N/A

g. Security Requirements.

N/A

h. Other.

N/A

i. TRADOC DCSINT Threat.

N/A

## Section II

### POINTS OF CONTACT.

#### 1. Tester Points of Contact.

Line	Agency	Location/Office Symbol/Name	Phone
None	Lead Service	City, State, FSD Name, Service	Phone

#### 2. Evaluator Points of Contact.

Line	Agency	Location / Office Symbol / Name	Phone
None	OSD	Alexandria, VA/JT&E PO/Action Officer Name	Phone

## Section III

### TEST RESOURCE REQUIREMENTS

#### 1. TEST DIRECTORATE.

- a. Tester Personnel Requirements. - N/A
- b. Evaluator Personnel Requirements. - N/A
- c. Tester Equipment Requirements. - N/A
- d. Evaluator Equipment Requirements. - N/A

#### 2. PLAYER PARTICIPANTS.

- a. Personnel Requirements. Copy from chapter 2
  - (0) Individual Personnel. - TBD
  - (1) Unit/Element Personnel. – TBD
  - (2) Red Force Personnel. - TBD
  - (3) Blue Force Personnel. - TBD
- b. Equipment Requirements. – TBD

#### 3. ITEM(S) TO BE TESTED.

- a. Test Items. - N/A
- b. Test Item Support Requirements. - N/A

#### **4. ADP SUPPORT.**

- a. Tester Hardware Requirements. - N/A
- b. Evaluator Hardware Requirements. - N/A
- c. Tester Software Requirements. - N/A
- d. Evaluator Software Requirements. - N/A
- e. Tester Other Support/Supplies. - N/A
- f. Evaluator Other Support/Supplies. - N/A

#### **5. AMMUNITION, MISSILES AND PYROTECHNICS.**

- a. Ammunition and Pyrotechnics Support. - N/A
- b. Missiles Support. - N/A

#### **6. POL, FLUIDS, GASES, AND CHEMICALS. - N/A**

#### **7. INSTRUMENTATION.**

- a. Tester Instrumentation Requirements. - N/A
- b. Tester Instrumentation Support Requirements. - N/A

#### **8. TEST FACILITIES/INSTALLATION SUPPORT.**

- a. Tester Facilities/Real Estate Support. - N/A
- b. Evaluator Facilities/Real Estate Support. - N/A
- c. Tester Installation Facilities Support. - N/A
- d. Evaluator Installation Facilities Support. - N/A
- e. Tester Installation Property Support. - N/A
- f. Evaluator Installation Property Support. - N/A

**9. THREAT SIMULATORS/OTHER SIMULATORS/TARGET VEHICLES.**

a. Threat Simulators. - N/A

b. Other Simulators. - N/A

c. Target Vehicles. - N/A

**10. FLYING HOUR REQUIREMENTS. - N/A****Section IV****TEST MILESTONES**

Milestone	Source	Required Date	Actual Date
N/A			

**Section V****TEST COSTS****1. Evaluation Cost Estimate. - N/A**

Category	Programmed By	Appn	FY 2005	FY 2006	FY 2007	FY 2008
(a) Civilian Hire						
(b) Civilian Overtime						
(c) TDY						
(d) Lease/Rental - Commo/Util						
(e) Contracts						
(f) Supplies/Materiel						
(g) Equipment						
(h) Instrumentation						
Total Cost:						

**2. Player Cost Estimate. TBD**

Category	Requested By	Programmed By	Appn	FY 2005	FY 2006	FY 2007	FY 2008
(a) TDY							
(b) Transport of Player Equipment							
(c) POL							
(d) Supplies/Materiel							
(e) Ground Equipment Support Costs							
(f) Aviation Support Costs							
Total Cost:							

**3. Tester Cost Estimate. - N/A**

Category	Requested By	Programmed By	Appn	FY 2005	FY 2006	FY 2007	FY 2008
(a) Civilian Hire							
(b) Civilian Overtime							
(c) TDY							
(d) Transport of Test Item(s)							
(e) Lease/Rental - Commo/Util							
(f) Contracts							
(g) POL							
(h) Supplies/Materiel							
(i) Instrumentation							
(j) Equipment							
(k) Threat Simulators							
(l) Other Simulators							
(m) Targets							
(n) Army Aviation Costs (Non-Player)							
(o) Other Services Direct Costs							
(p) TRADOC DCSINT Threat.							
Total Cost:							

**4. Total Direct Costs (Non-ATEC Funded). N/A**

Category	Requested By	Programmed By	Appn	FY 2005	FY 2006	FY 2007	FY 2008
(a) Other Services Direct Costs							
Total Cost:							

**5. Non-Direct Test Costs. N/A**

Category	Requested By	Programmed By	Appn	FY 2005	FY 2006	FY 2007	FY 2008
(a) Other Services Non-Direct Costs							
(b) Ammunition Costs (APA)							
Total Cost:							

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## **ANNEX G AIR FORCE TEST RESOURCES PLAN (TRP)**

(If only manpower support is requested, a TRP is not required. In that case, include the following under the annex title: An Air Force Test Resources Plan (TRP) is not required for the Project Name (XXXX) Joint Test (JT).)

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## APPENDIX G-1 AIR FORCE TEST RESOURCES PLAN (TRP)

### DEPARTMENT OF THE AIR FORCE

United States Air Force Joint Test and Evaluation Office (AFJO)

MEMORANDUM FOR See TRP Distribution

FROM United States Air Force Joint Test and Evaluation Office (AFJO)

SUBJECT: United States Air Force Joint Test and Evaluation Office (AFJO) - Prepared Test Resource Plan (TRP) for the JT of the Project Name (XXXX). (SUSPENSE: MMM YYYY)

The attached TRP, provided in accordance with AFI 99-102, reflects our estimate of test resource requirements to successfully complete this JT. Based upon TRP concurrence/non-concurrence, you can plan, program, and budget your resource requirements. Your concurrence with TRP identified resource requirements represents your commitment to providing resources for the XXXX JT.

Please provide United States Air Force Joint Test and Evaluation Office (AFJO) your concurrence or non-concurrence with supporting rationale by MMM YYYY. To aid in AFJO review of action agency comments, ensure TRP responses are coordinated with appropriate major command (MAJCOM) focal points before submittal.

TRP POCs are MSgt William Godbolt, AFJO, DSN number), Mr. First Last, XXXX Program Manager 702-652-9214, and Rank First Last, XXXX Joint Test Director, 702-652-3832.

Proper Official

USAF JT&E Program Manager

Attachment:

XXXX JT TRP w/Distribution List

Prepared By:  
WILLIAM GODBOLT, MSgt, USAF  
Test Resource Manager

Approved By:  
FIRST MI. LAST, Rank  
XXXX JT  
Joint Test Director

Distribution authorized to US Government agencies only; test and evaluation use. Refer other requests for this document to United States Air Force Joint Test and Evaluation Office (AFJO).

**PROGRAM BRIEF AND SUMMARY OF RESOURCE CHANGES****TRP No:** 2006001**United States Air Force Joint Test and Evaluation Office (AFJO) ID:** 2006001**As Of:** 15 Apr 06**Long Title:** Project Name (XXXX)**OT&E Agency:** OSD JT&E Program Office**OT&E Type:** JT**ACAT Number:****Type System:** DOTMLPF change recommendations**PMD Number:****Precedence:****Significant Test Dates****Evaluation Planning:** D MMM YY**Test Planning Start:** D MMM YY**Test Execution Start:** D MMM YY**Test Execution End:** D MMM YY**Test Termination:** D MMM YY

**XXXX JT Project Brief:** The Deputy Director, Air Warfare (DD,AW) chartered the XXXX JT in February 2006 under the auspices of the Director, Operational Test and Evaluation (DOT&E). The XXXX JT will insert from chapter 1. The Services and joint community agree that the test is necessary, and the lead Service is \_\_\_\_\_.

**XXXX JT Objective Request:** The XXXX test scope calls for insert from chapters 1 and 2.

**System:** The XXXX JT is not developing or testing a materiel solution; rather it will publish recommendations for improvements across the doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) domains.

**Major Resource Changes:** The XXXX JT will result in insert from chapter 4.

**Significant Requirements Cost Changes:** The XXXX JT will address DOTMLPF factors as the basis for institutional improvements in the joint force. These improvements will result in recommendations that could potentially provide insight toward changes in Service requirements generation and associated costs for the Services.

**Impacts to the Program:** The XXXX JT will result in DOTMLPF change recommendations with potential impacts on the following Air Force applications: insert from chapter 2.

**United States Air Force Joint Test and Evaluation Office (AFJO) ID: 2006001 TRP: 2006001 XXXX**  
**15 Apr 2006 RESOURCE SUMMARY (BY FISCAL YEAR)**

**Aircraft Requirements (Sorties / Hours)**

Source	Aircraft Type	2006		2007		2008	
		Sorties	Hours	Sorties	Hours	Sorties	Hours
ACC	A-10	0	0	0	0	0	0
ACC	E-3 AWACS	0	0	0	0	0	0
ACC	E-8 JSTARS	0	0	0	0	0	0
ACC	F-15E	0	0	0	0	0	0
ACC	F-16CJ	0	0	0	0	0	0
ACC	MQ-1 PREDATOR	0	0	0	0	0	0
ACC	RC-135 RJ	0	0	0	0	0	0
ACC	U-2	0	0	0	0	0	0
AFSOC	AC-130	0	0	0	0	0	0
AFSOC	HH-60	0	0	0	0	0	0
AFSOC	M/HC-130	0	0	0	0	0	0
AFSOC	MH-53	0	0	0	0	0	0

**Military Personnel (Number of billets requested/approved/on-board)**

Source	Assignment Type	2006	2007	2008	2009
USAF	PCS	6/0/0	9/0/0	9/0/0	4/0/0
USMC	PCS	1/0/0	2/0/0	2/0/0	2/0/0
ARMY	PCS	2/0/0	2/0/0	2/0/0	2/0/0
NAVY	PCS	1/0/0	1/0/0	1/0/0	1/0/0

**Civilian Personnel (Number of requested/approved/on-board)**

Source	Assignment Type	2006	2007	2008	2009
GS	PCS	3/0/0	3/0/0	3/0/0	3/0/0

**Missiles/Munitions/Targets (Number of Items)**

N/A

**Range Support**

Request Air Combat Command (ACC) coordinate USAF unit, asset, and/or platform participation and associated range support within exercises from chapter 2 to satisfy mutual joint and Service training objectives and opportunities. Insert description of exercises from chapter 2. To ensure a credible joint environment, the XXXX JT requests ACC assistance in coordinating approval to appropriate east coast ranges, as well as ranges at Edwards Air Force Base (AFB), Beale AFB, and Nellis AFB for mutual training and access of associated Air Force unit participants (aircraft).

United States Air Force Joint Test and Evaluation Office (AFJO) ID: 2006001 TRP: 2006001 XXXX  
 15 Apr 2006 RESOURCE SUMMARY (BY FISCAL YEAR)

### Training Support/Risk Reduction Requirements

The XXXX JT Program Test Plan will include insert risk reduction events from chapter 2. Request representative C2 nodes and C4 system users from participating units participate in these events. The scheduled risk-reduction events will occur during the following times:

- RR 1: Date from chapter 2
- RR 2: Date from chapter 2

XXXX requests trained and knowledgeable operators of the Air Force systems contained in the paragraph on pages 3 and 4, “**Impacts to the Program,**” and other personnel in line with the staff function requirements discussed in the **XXXX JT Objective Request** on page 3.

AFOTEC ID: 2006001 TRP: 2006001 XXXX  
 15 Apr 2006 RESOURCE ALLOCATION INDEX

SOURCE	Admin Supplies & Equipment	Computers & Comms	Contracts	Facilities	Flying Hours	Missiles Munitions Targets	Other	Personnel	Range	Test Investment Requirements	Training	Transportation of Material
ACC				X	X				X			
AFOTEC		X						X				
USAF												

United States Air Force Joint Test and Evaluation Office (AFJO) ID: 2006001 TRP: 2006001 XXXX  
 15 Apr 2006 FLYING HOURS\*\*\*

### AIRCRAFT TYPE

Sorties	Hours	Req From	Req To	Site	Source	Funded By	Rec No	Note
<b>F-15</b>								
##	##	Month Year	Month Year	Exercise Name	ACC/53WG	USAF/HQ	##	
<b>F-16CJ</b>								
<b>A-10</b>								
<b>E-3 AWACS</b>								
<b>E-8 JSTARS</b>								
<b>U-2</b>								
<b>MQ-1 PREDATOR</b>								
<b>RC-135 RJ</b>								
<b>AC-130</b>								
<b>HH-60</b>								
<b>M/HC-130v</b>								
<b>MH-53</b>								

United States Air Force Joint Test and Evaluation Office (AFJO) ID: 2006001 TRP: 2006001 XXXX  
 15 Apr 2006 PERSONNEL\*\*\*

### AFSC TITLE

Grade/Skill	Number Days	Type	Req From	Req To	Source	Site	Rec No	Note
<b>JOINT TEST DIRECTOR</b>								
O-6	xxx	1170	PCS	Month Year	Month Year	USAF	City, State	##
<b>AIR FORCE SERVICE DEPUTY – Deputy Director for Support</b>								
O-5	xxx	1170	PCS	Month Year	Month Year	USAF	City, State	## Logistics/Supply
<b>OPERATIONS RESEARCH &amp; SYSTEMS ANALYST – Chief of Analysis</b>								
O-4	xxx	990	PCS	Month Year	Month Year	USAF	City, State	## CAOC Experience
<b>SUBJECT MATTER ANALYST</b>								
O-4	xxx	810	PCS	Month Year	Month Year	USAF	City, State	## RJ/JSTARS/E-3
O-4	xxx	810	PCS	Month Year	Month Year	USAF	City, State	## CAOC Experience
O-4	xxx	990	PCS	Month Year	Month Year	USAF	City, State	## Pilot/ALO
<b>INFORMATION MANAGEMENT – Security Specialist</b>								
E-7	xxx	810	PCS	Month Year	Month Year	USAF	City, State	##
<b>PERSONNEL SPECIALIST</b>								
E-6	xxx	900	PCS	Month Year	Month Year	USAF	City, State	##
<b>NETWORK ADMINISTRATOR</b>								
E-6	xxx	1170	PCS	Month Year	Month Year	USAF	City, State	##
<b>TECHNICAL DIRECTOR</b>								
GS-14	xxx	900	PCS	Month Year	Month Year	USAF	City, State	##
<b>SECURITY MANAGER</b>								
GS-13	xxx	1170	PCS	Month Year	Month Year	USAF	City, State	##
<b>FINANCIAL MANAGER</b>								
GS-10	xxx	1170	PCS	Month Year	Month Year	USAF	City, State	##

### JT Resource POCs

Organization	Last-Name	Rank	Phone	E-mail	Role
HQ AFJO/HO	Coats	Mr.	DSN 246-2579	lucious.coats@afjo.af.mil	AFJO HO
HQ AFJO/CNJ	Godbolt	MSgt	DSN 246-5339	william.godbolt@afjo.af.mil	RESOURCE MANAGER
HQ USAF/TEP	MacLeod	Lt Col	DSN 227-0322	stephen.macleod@pentagon.af.mil	AIR FORCE POC
CURRENT OPERATIONS	Hayes	Ms.	DSN 761-6835	renee.r.hayes@atec.army.mil	ARMY POC DIVISION ODCSOPS
MCCDC	Brahe	Maj	(703) 784-5234	bruce.brahe@usmc.mil	USMC POC
USN	Mullen	CDR	(703) 601-1781	edward.mullen@navy.mil	NAVY POC



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## **ANNEX H SECURITY**

### **H.0 Introduction**

(An overview of procedures contained in this annex).

### **H.1 Security of Classified Information**

(Classified information will not be disclosed to any person except those who possess security clearance eligibility at a level equal to or higher than the classification of the specific information and a need-to-know in order to carry out their job responsibilities. Access to classified or sensitive information will be restricted to those individuals who have a verified security clearance on file, a need to know, and a signed Standard Form (SF) 312. All JT personnel must be knowledgeable of the information to perform their duties in accordance with DOD “need-to-know” policies. Members of the JT will not disclose to an individual any information that is not required for the performance of the individual’s job.)

### **H.2 Responsibilities**

(List the members of the security team and their responsibilities.)

### **H.3 Physical Security**

(List the methods for maintaining physical security.)

### **H.4 Visitor Control**

(All JT must have visitor control. Describe the procedures for coordinating clearance transmission.)

#### **H.4.1 Outgoing Visit Requests**

#### **H.4.2 Incoming Visit Requests**

#### **H.4.3 Visit Escort and Control**

### **H.5 Information Security**

(The JTD is the security classification authority. The JT will classify materials by original classification authorities, or by derivative authority. Media provided by other organizations in support of testing are classified in accordance with the originating organization’s applicable security classification guides and regulations.)

#### **H.5.1 Media Classification**

#### **H.5.2 Data Collection Materials**

#### **H.5.3 Storage and Destruction of Classified and Sensitive Material**

#### **H.5.4 Courier Responsibilities**

#### **H.5.5 Wrapping Requirements**

#### **H.5.6 Incidents and Reporting**

### **H.6 Computer Security (COMPUSEC)**

(The ISSO will be responsible for the AIS Security Program and will accredit AIS equipment in accordance with DODD 8500.1. The JT will only use systems accredited at the Secret collateral level to process classified information, including word processing.)

### **H.7 Operations Security (OPSEC)**

(The JTD will be responsible for overall planning and execution of operations and other activities, and has the primary responsibility for OPSEC. The JTD will ensure that all staff efforts integrate OPSEC into procedures and planning processes to ensure maximum protection for all operations, activities, and supporting functions. Every individual associated with such activities, regardless of position, must assist in achieving this protection.)

#### **H.7.1 OPSEC Training**

#### **H.7.2 OPSEC Vulnerabilities**

#### **H.7.3 Essential Elements of Friendly Information (EEFI)**

### **H.8 Communications Security (COMSEC)**

(The JT will protect, control, safeguard, and destroy COMSEC material in accordance with applicable directives. Automated media and administrative equipment used by the JT to process classified information must comply with emission security requirements.)

#### **H.8.1 COMSEC Responsibilities**

#### **H.8.2 COMSEC Security Checks**

#### **H.8.3 COMSEC Access**

#### **H.8.4 COMSEC Routine Destruction**

### **H.9 Security Emergency Procedures**

(In an emergency, if time permits, custodians of classified information must secure all classified media in an approved security container before departing the affected area. Personnel will not risk injury or the loss of life to secure classified material. If custodians cannot secure classified material, the holder will secure the classified material on his or her person and evacuate the affected area immediately. Immediately following the emergency, personnel will return to their work areas and check for any unsecured classified information.)

## **ANNEX I MODELING AND SIMULATION PLAN**

(NOTE: Include this annex only if required.)

### **I.0 Introduction**

#### **Figure I-1. Modeling and Simulation Approach**

### **I.1 Modeling and Simulation Requirement**

#### **I.1.1 Simulation Test Overview**

#### **I.1.2 Description**

##### **I.1.2.1 Modeling Tool**

##### **I.1.2.2 Test Venue Modeling and Simulation**

#### **I.1.3 Modeling and Simulation Architecture**

#### **Figure I-2. Scenario for Test Events**

#### **Figure I-3. Systems Architecture**

#### **I.1.4 Simulation Facilities**

(Describe the facilities the JT will use to support the simulation environment. Include location, capability, security constraints such as OPSEC and classification levels, facility scheduling, special instrumentation requirements, data collection and reduction capability, previous applications for this type of M&S environment [support VV&A decision of simulation federation], experience in integrating M&S into their facility, and any limitations and constraints that might be imposed in support of the JT.)

#### **Figure I-4. Simulation Facility Layout**

#### **I.1.5 Integration of Models and Simulations**

(Address the integration control document that will be developed to support building the M&S test environment, include an M&S integration schedule with milestone review points for each simulation test environment to be created, and describe role of the JT in relation to the M&S simulation facilities participating in the simulation event. Provide an overview of M&S working group to include chair and level of participation of each facility representative. Address risk reduction methods that you will employ to ensure M&S integration is complete and on schedule.)

### **I.2 Verification, Validation, and Accreditation Process**

#### **Figure I-5. Simulation Verification, Validation, and Accreditation Process**

### **L.3 Verification, Validation, and Certification of M&S Data**

(Verification, validation, and certification (VV&C) addresses the appropriateness and correctness of all simulation data to meet JT needs. VV&C includes a summary of the results of traditional verification activities and JTs accomplish it through software, data, and output accuracy.)

## ANNEX J REFERENCES

(NOTE: Adjust as necessary.)

### Department of Defense

Department of Defense (DOD) Architecture Framework Working Group, *DOD Architecture Framework (DODAF)*, Deskbook: Version 1.0, August 2003.

Director of Central Intelligence Directive (DCID) 6/9, *Physical Security Standards for Sensitive Compartmented Information Facilities*, November 2002.

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AFI 33-211, *Communications Security (COMSEC) User Requirements*, June 2004.

AFI 33-212, *Reporting COMSEC Deviations*, January 2003.



## **ANNEX K DISTRIBUTION LIST**

(Insert the latest distribution list from the JT&E Program Office. Delete any individuals not associated directly with your project and add any specific individuals who are participating in the test or organizations supporting the test.)

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## **APPENDIX L-3 JOINT FEASIBILITY STUDY REPORT OUTLINE**

This outline provides the minimum necessary information for a joint feasibility study report (JFSR). The intent of this report is to provide a documented summary of the joint feasibility study (JFS) findings and the work completed to date on developing a test concept, including the draft program test plan (PTP) as an attachment. Additional information can be added as required; however, the JFS is cautioned not to make the document more complex than necessary. Ensure that the document is clear, concise, and makes your intended point in layman's terms. Do not assume that your reader will understand the problem that you proposed addressing. Suggest you select someone not familiar with the information and ask them to read it and provide feedback if they do not understand everything discussed. Follow the JT&E Style Guide to prevent rework (e.g., two spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to one of the military Services, etc.)

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**JFS TITLE  
(JXXX)**

**Joint Feasibility Study Report**

**Month Year**



Submitted By: Joint Feasibility Study Director Name, Rank, Service  
Director

Signature Line

Approved By:

J.H. Thompson  
JT&E Program Manager

Signature Line

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## **JOINT FEASIBILITY STUDY REPORT**

### **1.0 Introduction**

(Brief overview that highlights the study was under auspices of OSD, DOT&E and the Services and joint community agreed the study was necessary. Identify lead Service(s) or sponsoring COCOM and provide a brief description of the operational capability impacted by the problem.)

### **2.0 JT Problem Statement and Issues**

(Briefly state the objectives of the JT, state the operational problem to be resolved, and list the principal test issues. Provide clarifying comments as necessary.)

### **3.0 Test Concept**

(Briefly describe the test concept (number of mini-tests, field tests, and simulation tests proposed and the objective of each); provide information on where each event would occur, when it would occur, and what type organizations would participate representing the Services [Army, Marine Corps, Navy, and Air Force units]. Suggest table format. Give enough info to explain how the proposed JT was going to facilitate resolution of the test issues.)

### **4.0 Test Products**

(Provide a list of all proposed test products and indicate the organization(s) projected to receive each test product. Suggest bullet or table format depending on the number of columns. Provide comments on how these test products would affect warfighter capability in current and future operations.)

### **5.0 Test Organization**

(Provide the proposed organization structure and the Services and joint community members that would have comprised the JT staff [Army providing three personnel; Marine Corps providing one; Air Force providing six, Navy providing two, Special Operations Command providing five]. You could use a small table to present this information.)

### **6.0 Study Conclusions**

(Provide the results of the feasibility study regarding feasibility and necessity. Include factors that would affect test execution and any Technical Advisory Board [TAB], Senior Advisory Council [SAC], or JT&E Program Office [JPO] comments and recommendations about feasibility, test execution risk, resources, or support. Recommend using the below sub-paragraphs to address each of these areas.)

#### **6.1 Necessity**

#### **6.2 Feasibility**

#### **6.3 Recommendations**

### **7.0 Draft Program Test Plan**

A draft Program Test Plan (PTP) and Consolidated Resource Estimate (CRE) was developed during the JFS. Attachment 1 contains the draft PTP and CRE in its entirety.

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## **APPENDIX L-4 JFS LESSONS LEARNED REPORT OUTLINE**

This outline provides the minimum necessary information for a joint feasibility study (JFS) lessons learned report. Additional information can be added as required; however, the Feasibility Study Director (FSD) is cautioned not to make the document more complex than necessary. The purpose of this report is to provide lessons learned information to the Deputy Director, Air Warfare, JT&E Program Manager, and future FSDs. The intent of this information is to refine the JT&E Program and to help succeeding FSDs avoid similar pitfalls during when conducting a joint feasibility study. The report should contain problems encountered and solutions developed to resolve those problems. The time period for this report begins upon direction as a joint feasibility study and ends upon the chartering decision and should include coordination with and assistance provided by the Joint Test Support Cell (JTSC). Ensure the document is clear, concise, and makes your intended point in layman's terms. Follow the JT&E Style Guide to prevent rework (e.g., 2 spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to military Services, etc.).

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**JFS TITLE  
(JXXX)**

**Joint Feasibility Study**

**Lessons Learned Report  
Month Year**



Submitted By: FSD Name, Rank, Service  
Director

Signature Line

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## **JFS LESSONS LEARNED REPORT (LLR)**

### **1.0 Introduction**

(Brief overview that indicates the date directed as a feasibility study; identify lead and supporting COCOMs and/or Services during the JFS.)

### **2.0 JFS Overview**

(Provide a background of the problem that led to the JFS. Include a figure containing the JFS schedule.)

### **3.0 Lessons Learned**

(In bullet format, address the following lessons learned topics: personnel (military, government civilian, and contractor), budget and financial, oversight (JWAG, FFRDC, JTSC, JT&E Program Office, and Service), security, infrastructure support, training, and other issues (i.e., what other issues arose or caused problems and how solved.).

### **4.0 Feasibility Study Directors Comments**

(Address items not covered above.)

### **5.0 Conclusions and Recommendations**

(In bullet form.)

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## **ANNEX M OUTLINES FOR JOINT TEST WRITTEN DELIVERABLES**

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## **APPENDIX M-1 DETAILED TEST PLAN OUTLINE**

The below outline provides necessary information for a detailed test plan (DTP) that is required to coordinate activities to plan and execute a test event. A DTP is required for all scheduled test events that will result in any data collected being used to answer one or more test issues (e.g., mini-tests, field tests, and simulation tests). When compared to a program test plan (PTP), the DTP specifies the what, when, where, who, and how details of a test event to a much greater detail. As a rule of thumb, no cell in a table or matrix should be blank or “TBD”. At a minimum, there should be a not applicable (N/A) to indicate that no information applies to that table cell. Should information required for this DTP be classified, add a classified Annex at the end of the required annexes indicated in this outline and reference this classified annex where applicable. Be sure to forward the classified annexes in hardcopy to receiving organizations as many do not have access to classified SIPRNET terminals.

For events considered risk reduction, a DTP is not required. However, a Risk Reduction Plan is required that follows the outline of the DTP. The key difference between a risk-reduction event and a test event is that a risk-reduction event is usually performed to exercise the intended data collection and analysis plans that will be implemented during a mini-test, field test, or simulation test event.

Where possible use figures and tables to illustrate your test execution intent and use short, but complete, discussions to explain them. Ensure the document is clear, concise, and written to the knowledge level of those in the DTP coordination chain outside of your test team. Best rule of thumb in developing a DTP is that no one on your test team or participating in the test event should have to guess the intent of test management personnel. When in doubt, add more detail to eliminate questions. Suggest using someone not familiar with the information and ask him or her to read it and provide feedback if they do not understand everything addressed. It is important that a Test Planning Working Group (TPWG), with membership from all organizations with substantial participation in the test event, be convened at predetermined test readiness milestones leading to an executable DTP. The TPWG provides the opportunity to coordinate test requirements that range from data collector locations and potential automated data reduction opportunities provided by the host site, to release of the raw data without sterilizing it. It is far better to resolve differences early in test planning than just before, or during, execution of the test event.

Since the DTP is a DOT&E document of record, be sure to follow the JT&E Style Guide (e.g., 2 spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to military Services, etc.). Minimize repeating information across the chapters and annexes.

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**JT TITLE  
(JXXX)**

**Joint Test**

**(Test Title) Detailed Test Plan  
Month Year**



(Picture or Logo, if desired by Joint Test Director)

Submitted By: Joint Test Director Name, Rank, Service  
Director

Signature Line

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## DTIC FORM

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## **EXECUTIVE SUMMARY**

(4 - 6 pages)

Your audience for this DTP Executive Summary is the senior officer (pay grade O-6) and Government Service (GS-15) level. Provide information at a level that conveys the test purpose, how the test will support improving current warfighter capabilities, and only enough information about the test execution procedures to lay the ground work for the main body and Annexes of the DTP. They are expected to direct their relevant staff's to provide the support and comply with any specific procedures that are directed to them within the DTP. The ES is also an opportunity to solicit Service and joint support to resolve a test constraint or limitation that is related to requirements for test resources or access to organizations or facilities.)

### **ES.1 Background**

(Brief overview that indicates that the JT is under the auspices of OSD/DOT&E and that the Services and joint community have agreed that the test is necessary. Identify the lead Service(s) and, if applicable, the co-sponsor(s). Provide a brief description of the operational capability impacted by the problem that will be addressed by the JT.)

### **ES.2 Problem Statement and Test Issues**

(Briefly state the test purpose, objectives of the test, and list the principle test issues that will be answered by the JT. Provide clarifying comments as necessary.)

### **ES.3 Test Description**

(Briefly describe the test design for this test event: what are the test articles – changes to TTP, architectures, or processes; when and where the test event will be conducted – if more than one location, list each location; describe the test scenario or exercise purpose; and list the organizations that will be participating in the test event. Suggest use a table format if possible. Provide enough information to explain how this test is going to fit into the overall test concept.)

### **ES.4 Test Event Schedule**

(Provide a short discussion that results in a statement that contains the planned dates and time periods for each major test event phase, any backup venues, and expected quick look report (30 days after test event concludes) and test event report dates. Include any associated pre-test rehearsals for risk-reduction purposes. Use of a table or Gantt chart is recommended.)

### **ES.5 Test Constraints, Limitations, and Mitigations**

(Identify any test constraints or limitations that are expected to impact the ability to collect operationally realistic data and how these will be mitigated to minimize their impact on test findings, conclusions, and recommendations that may evolve from the test event.)

### **ES.6 Test Products**

(Provide a list of all expected test products from this test event that are expected to improve military capability and indicate any organization(s) that are likely to receive and use the products before the JT concludes. If there are none at the time of the test event, so state, and provide a short discussion of when products can be expected. (For example, the test may be using a spiral approach to determine a baseline case, identify and develop changes to current TTP and then test

the effectiveness and utility of the changes in the next test event – hence no products until validated). Provide comments on how these products will impact warfighter capability in current and future operations. Consider using doctrine, organization, training, materiel, leadership, personnel, and facilities (DOTMLPF) format.)

#### **ES.7 Summary**

(This is optional and applies should one or more critical point need to be stated for emphasis.)



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## CHAPTER 1 INTRODUCTION

(4-6 pages)

### 1.0 Overview

(Provide an overview of the DTP content. This should include information that indicates the JT is under the auspices of OSD/DOT&E and that the Services and joint community have agreed that the test is necessary; identify lead Service(s).)

### 1.1 Background

#### 1.1.1 Problem Description

(Provide a brief description of the history of the JT from nomination to present, and address the operational capability impacted by the problem.)

#### 1.1.2 Problem Statement

(List and discuss the problem statement to include participation of your Joint Warfighter Advisory Group (JWAG), the Services, and the joint community and their concurrence that resulted in this particular problem statement. This ties the participants involved in development of the program test plan (PTP) with the test objectives of the DTP.)

#### 1.1.3 Test Issues

(List and very briefly discuss each of the principle issues that must be answered by the JT; add first level of sub-issues, if needed, to clarify intent of the principle issues. [Note: All lower levels of the sub-issues listed in the Dendritic and IDRL, contained in Annex C (Dendritic and IDRL) of the DTP, must be clearly linked to these principle issues].)

### 1.2 Test Purpose and Objectives

#### 1.2.1 Test Purpose

(State the purpose for conducting this test event in terms of its importance to a joint warfighting capability. If this is a baseline test, so indicate and provide a short overview of how it will be used to identify deficiencies in capability. If you are using a spiral test approach, use a figure to clearly indicate how this test fits into the spiral and how it will support the other scheduled test events.)

#### 1.2.2 Test Objectives

(In consonance with the purpose of this test event, state the principle objectives to be achieved from the test.)

### 1.3 Test Schedule

(Illustrate with a Gantt chart type figure – indicate all test planning, risk-reduction, test execution, and post-test milestones (e.g., pre-test rehearsal event(s), major coordination meetings, training periods, distinguished visitor visit dates and time periods, pre- and post-test activities such as General Officer Steering Committee (GOSC) and JWAG meetings, and test report dates.))

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## **CHAPTER 2 TEST CONCEPT**

(25 – 30 pages – depends on tables and figures)

### **2.0 Introduction**

(Provide short paragraph that leads into a discussion of the test event.)

### **2.1 Test Approach**

(Purpose of the test concept is to delineate the what, when, where, who, why, and how aspects of your planned test event to answer those JT issues and sub-issues relevant to the test event objectives. It is based on the Dendritic and Integrated Data Requirements List (IDRL) contained in Annex C (Dendritic and IDRL) that guides the data collection and analysis plans, selection of test venue and intelligence community validated scenario(s) that are needed to collect operationally realistic test data, test participants [e.g., specific units, operational nodes (CAOC-N, USS Mount Whitney, etc.), personnel (skill and experience levels), C4I equipment, threat systems, and M&S facilities, test articles (improvements to TTP, C2 systems, and processes being tested and evaluated), test conditions required that represents a realistic, operational environment (e.g., jamming, ECM, TTP, C2 architecture, elevation, foliage and vegetation, dry versus wet climate, day and night), and the controlled and uncontrolled test variables that influence the test data analysis (e.g., type of weapon systems, jamming versus non-jamming, C2 systems, weather, obscuration)].

The test concept addresses the type of testing that will be performed in this test event (e.g., comparison test between a baseline, and prior established criteria, to determine the “amount” of improvement that evolves from a change in test conditions). It also includes how it will be conducted (e.g., in two phases – first to determine baseline capability and second to test and evaluate changes (enhancements) to the baseline to determine level of improvement to the baseline case. If both baseline and enhancement testing is accomplished during the same test event, retraining of participants must be addressed and how the human factors learning curve will be mitigated. This is a generic example. You will need to add specifics – if phases are used, suggest lay out the test concept by test phase if explanation is clearer.). Use tables and figures as appropriate to simplify the information, but be sure to address the contents of each in the discussion paragraphs. Figure 1 is an example of a test concept matrix that can be useful to illustrate the specific test event considerations that are needed and the operational participants. This can also be expanded to include data collection instrumentation that a range or facility will need to provide. The first column contains test venue information for those test events that may be distributed across multiple ranges or test facilities.

#### **2.1.1 Scenario**

(Describe the test scenario in detail. Explain how the scenario will produce operationally realistic test data. If the test uses a Defense Intelligence Agency (or other source) -validated scenario, then so state.)

#### **2.1.2 Test Participants**

(Describe organizations, equipment, and related hardware (e.g., weapon systems, C2 systems, etc.) participating in the test. If the test has live, virtual, and/or simulated play, then explain each and how they interrelate.)

### 2.1.3 Test Cell Matrix

(Provide a description of the test cell matrix and then present (in table form) the test cell matrix. The main items should include the issues and sub-issues matched to test articles (if applicable), test conditions, and number of intended test trials (sample size).)

### 2.1.4 Test Articles

(Describe the test articles that will be tested and evaluated [e.g., changes to TTP and system of systems architectures, CONOPS, new or different process models, training packages, etc]. The purpose of test article is to focus data collection on those data sources that provide the means to test and evaluate the test article when employed in a realistic operational environment. Baseline test events also must have a test article identified, though the description may be sketchier, especially if the TTP, supporting C4I architectures, and related processes do not currently exist. The DTP should contain the new TTP, modified architectures, and/or process models that will be tested. These should be contained in Annex J, Test Articles. Depending on how the test event is conducted, these may evolve as the test proceeds; however, caution must be exercised to avoid the temptation to change the test articles during the test event based on preliminary data. It is easy to contaminate the data collected during a test event by changing the test articles or any aspect of them. The Joint Test Director should be directly involved in any decision to modify the test design and understand the ramifications to data collection, analysis, and evaluation activities. Any changes in TTP require retraining of the test participants and revision of the data collection plan [cannot mix data prior to a change with data collected after a change]. The test articles must be directly related to the test issues [e.g., if TTP are not addressed in any of the test issues and sub-issues, they would not be an appropriate test article for a JT].)

## 2.2 Test Design

(For the DTP, the dendritic analysis process must include all levels of issues [i.e., issues, sub-issues, sub-sub-issues, etc.] in the dendritic that data are required to be collected during execution of the test event. Additionally, each must be supported by one or more corresponding measures [MOEs and MOPs], and data elements. The dendritic and IDRL (Annex C) must be completed in a table format. It is sufficient to list all issues and levels of sub-issues in Annex C without the corresponding measures and data elements so long as there is a numbering scheme that allows the unambiguous tracking of the issues to the measures in the IDRL (Annex C). This will reduce the necessity to duplicate information between the tables. Provide a test concept matrix (see Figure 2-2) that correlates to the issues and levels of sub-issues that contain test methods, test conditions, number of intended test trails (sample size), test venues, sample test conditions, and illustrate the intended test concept in tabular form (suggest use format similar as that contained within Figure 2-2). The table can be tailored to reflect sample sizes that differ between test conditions and the addition of an instrumentation column that delineates what instrumentation is required. If convenient and to simplify, this information can be combined in the IDRL as additional columns of information with comments that sends the reader to the appropriate IDRL rows and columns.)



## **2.3 Test Constraints and Limitations**

(List all test constraints, limitations, and the mitigations that you have identified to off-set each constraint and limitation. If there is no mitigation to a constraint or limitation, state the expected impact to the test event and if that result precludes the execution of the test or affects the ability to conduct a complete data analysis and evaluation.)

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## CHAPTER 3 PRE-TEST PLANNING

(20 - 30 pages)

### 3.0 Introduction

(Briefly describe pre-test activities. Address information for coordination of test resources such as logistics considerations that include procurement of materiel and services, movement of materiel and personnel, test facilities, on-site transportation, and fiscal requirements.)

### 3.1 Test Coordination

(Describe test coordination activities. Include a description of the test plan working group (TPWG) meetings used to finalize this DTP. List the organizations in the TPWG including all internal and external persons with lead responsibility for ensuring instrumentation; test resources; and facility resources are ready to support the test. Provide a schedule of meetings and Joint Test Director reviews to ensure this DTP is executable. If the test is “piggy-backing” on an exercise, be sure to address the exercise points of contact, planning conferences attended, and site surveys conducted.)

### 3.2 Resource Coordination

(Address information for coordination of test resources. This includes test facilities, units, personnel, and equipment. List supporting Services and Agencies that will be providing resources to the test.)

#### 3.2.1 Test Facilities

(Provide the location, addresses, and descriptions of the facilities that will be used by the JT during the test. Suggest you add a figure that illustrates the layout of the facility to include location of the test manager and immediate support staff, test control, data management, etc. Be sure to include same type of information for satellite test operations facilities. Provide directions for reaching the facilities from key points and include phone numbers – be cautious that test support phones are located in an area that does not interfere with exercise operations or take precautions to minimize interference such as setting cell phones on vibrate mode.)

#### 3.2.2 Units

(Provide the designation, location, addresses, and descriptions of the units that will be used by the JT during the test. List applicable points of contact for the unit and any other information pertinent to the unit.)

#### 3.2.3 Personnel

(Provide the specialty, source (unit or component), and time required for personnel that will be used by the JT to augment data collection during the test. Suggest you add a figure that illustrates the total number of personnel required from each source. List applicable points of contact for each source.)

#### 3.2.4 Equipment

(Provide the type, source, and descriptions of the on-site administrative equipment (e.g., coping machines, word processors, computer servers, etc.) that will be used by the JT during

the test. Suggest you include a chart that lists each piece of equipment and who is providing it.)

### **3.3 Instrumentation Requirements**

(Describe all instrumentation requirements. Be sure to tie instrumentation requirements that were submitted to the Army and Air Force as part of the Army OTP and Air Force TRP (this is to ensure that the requirements correlate with what was requested and what is required to either cancel a piece of instrumentation no longer required or to coordinate a new requirement). As applicable, list all unique test instrumentation such as portable TSPI instrumentation for ranges that lack instrumentation, MILES equipment that tracks movement and engagement results of individual ground troops and vehicles for purpose of blue force tracking and to determine probability of kill rates. Address instrumentation survey points if using mobile instrumentation systems and include calibration requirements and frequency of calibration – ensure that instrumentation requiring frequent calibration during a test are appropriately scheduled and conducted. Address communications clearance frequency bands that are needed to transmit instrumentation data across a test or training range. For application of electronic warfare instrumentation, address coordination requirements and schedule milestones to obtain clearances for conducting open-air jamming. Contact the JTSC for more information.)

### **3.4 Communications Requirements**

(List communications required for executing the test (e.g., T1 lines, telephones, internet connectivity, etc.) Include all communications required to properly execute command and control functions, data management functions, as well as security and safety functions. Address coordination of all communications frequency requirements for instrumentation, voice, and data transfer applications.)

### **3.5 Logistics Requirements**

#### **3.5.1 Supplies**

(Describe the supplies required to execute the test. Include administrative as well as media required for data management functions. Address requirement for obtaining current facility and range maps and ensure that all prohibited and restricted areas are clearly marked.)

#### **3.5.2 Transportation**

(Describe test team transportation requirements. Provide details on how personnel and equipment required to conduct the test will be transported to the test site. Also provide details of required transportation during the test (e.g., to and from collection locations, to and from data management locations, etc.).)

##### **3.5.2.1 Equipment**

(List the transportation means for getting test equipment to the test site. If equipment is being provided by another organization, ensure the DTP explains who has responsibility for getting the equipment to the test and ensure this is included in the MOA in Annex E).

**3.5.2.2 Personnel**

(List the transportation means for getting personnel to the test site. Include specific dates for travel to and from the test and any travel necessary for training events. If personnel are being provided by another organization, ensure the DTP explains who has responsibility for getting the personnel to the test and ensure this is included in the MOA in Annex E).

**3.5.3 Service Support**

(List those services required for executing the test (e.g., billeting and messing, flight line services, ordnance handling and stowage should a live fire be involved, POL, medical and dental, protocol, copy machines, procurement and accountability of supplies and government property, public affairs, etc.) Address property accountability and requirement to account for property issued to, or purchased by, the JT at the test site. Include equipment that will be loaned from non-JT&E organizations in support of the test event.)

**3.6 Manpower Requirements**

(Describe the total amount of manpower required to accomplish the test, regardless of source. Ensure adequate personnel for command and control, data management, security, and safety functions in addition to data collectors. Suggest you include a chart or diagram that lists the total by functional responsibility.)

**3.7 Environmental Considerations**

(Provide information that addresses understanding the importance to comply with local, state, and federal environmental regulations throughout the test, if applicable. Identify any unique environmental regulations that the test team must comply with: e.g. plants (to include description and picture), protected animals, and potentially dangerous wildlife. Include a schedule of related mandatory briefings. Insert maps with restricted access or no encroachment areas indicated. You may need to list relevant environmental analyses and studies, if applicable. If these are on file at the base or facility where the test is conducted, provide points of contact and phone numbers of where the documents are maintained.)

**3.8 Training**

(Address data collector training and the use of pre-test rehearsals to identify deficiencies in data collection methods, procedures, and process in sufficient time to resolve before the test is executed. This could include the use of rock drills (sandbox type rehearsals), limited use of simulation (risk-reduction events), and/or scripted play at the JT's test facility. Address any coordination requirements for classroom facilities.)

**3.9 Safety**

(Overview safety importance. Address coordination in terms of names and contact information with agencies outside of the JT who will be involved in safety reporting (e.g., range safety officer for a test conducted at a range or training facility). Include a statement that in the event of death or injury of JT personnel or personnel participating in a test event; the Deputy Director for Air Warfare, JT&E Program Manager, and Action Officer will be verbally notified as soon as possible and a written report will be provided within 24 hours.)

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## CHAPTER 4 TEST CONTROL, DATA MANAGEMENT, ANALYSIS

(30 – 60 pages)

### 4.0 Introduction

(Introduce the chapter and its parts.)

### 4.1 Test Control

(Describe test control.)

### 4.2 Test Schedule

(Describe the daily test schedule such as the test cells scheduled for each time period, etc. To support Very Important Person (VIP) visits, recommend schedule a period that will not be negatively impacted by visiting of flag-level and SES personnel. This must be balanced to ensure that the VIPs have something tangible to view while the test is being conducted. A short pre-brief period is appropriate to overview the test event.)

### 4.3 Test Command and Control

(Provide a figure that includes an organizational line diagram that breaks down the test organization and show clear lines of command and control. Ensure all external organizations that require coordination for data collection, facilities, and transportation are indicated. Add a table that contains names and phone numbers of all key personnel who may need to be called to quickly resolve problems. For each of the following positions, provide a description of their responsibilities. Include any other positions required by your specific test.)

#### 4.3.1 Test Manager

(Provide a description of the duties and responsibilities of the test manager. This is typically the person who is delegated the responsibility for ensuring the test is properly planned, coordinated, and executed.)

#### 4.3.2 Data Collection Manager

(Provide a description of the duties and responsibilities of the data manager. This is typically the person who is delegated the responsibility for ensuring the appropriate data is collected in sufficient quality and quantity to answer the test issues.)

#### 4.3.3 Resource Manager

(Provide a description of the duties and responsibilities of the resource manager. This is typically the person who is delegated the authority to coordinate all test resource requirements (facilities, manpower, billeting, messing, medical and dental services, communications, logistics, transportation, and fiscal requirements).)

#### 4.3.4 Instrumentation Manager

(Provide a description of the duties and responsibilities of the instrumentation manager. This is typically the person who is delegated the authority to determine and coordinate for all necessary test instrumentation and ensures instrumentation remains functional during the test.)

### **4.3.5 Modeling and Simulation Manager**

(As applicable. Provide a description of the duties and responsibilities of the Modeling and Simulation Manager. This is typically the person delegated the authority to determine and coordinate all modeling and simulation integration, execution, and simulation based data collection methods prior to, and during, the test event.)

## **4.4 Data Management**

(Provide an overview of the data management process. Should agreements be made with a test or training facility to perform data reduction and preliminary analysis activities, a memorandum of agreement should be initiated that clearly delineates each organizations responsibility – ensure MOA is contained in Annex E. Annotate this information in the appropriate paragraph that follows.)

### **4.4.1 Data Requirements**

(Describe the data requirements for this test. You should clearly link all data requirements to the test measures. Suggest you provide a table or chart that clearly shows this linkage or refer to the IDRL, Annex C.)

### **4.4.2 Data Sources**

(Describe the sources providing data in this test. This list could include such items as M&S, C4I systems, weapons platforms, etc. If M&S is a data source then ensure that a discussion of the VV&A of the M&S system is included. Suggest you include a table or chart that clearly shows the linkage between the data requirements and the data sources or refer to the IDRL, Annex C.)

### **4.4.3 Data Collection Plan**

(Briefly discuss the data collection process that will be used (suggest a flow chart format). As risk reduction, address data collector training, use of pre-test rehearsals to identify and resolve deficiencies in data collection methods, procedures, and process prior to test execution. This could include the use of rock drills (sandbox type rehearsal), limited use of simulation (risk-reduction event), and/or scripted play. Overview the data collection methods [e.g., manual forms, automated methods, and questionnaire methods (Data forms from all three methods must be provided in Annex F (Data Collection Forms), instrumentation required to collect the data (list and details in Annex G (Instrumentation Plan))] to include any special instrumentation that must be procured or developed. Address data certification and quality control process that will be used. Insert a table that provides responsibilities of the data collection team that includes instrumentation. Provide a figure that illustrates the initial location of data collectors assigned to data collection duty – this also provides the JTD and Test Manager a perspective of required transportation requirements to support data collection activities. Automated data collected from simulation test events is normally by in-line data loggers.)

### **4.4.4 Data Handling and Storage**

(A figure illustrating the process may be helpful. Include procedures for handling, processing, and storing classified data, manual data collection forms, and automated data to include the media that the data are recorded. Address data security procedures. This is a



particular challenge with conducting a distributed test that includes simulation facilities linked to live test environments or the movement of test data using commercial T1 or T3 communications lines or RF based communications systems. Discuss how data is to be stored. Address how classified data will be handled (e.g., in accordance with procedures in the Security Annex, Annex H). If data reduction will be performed by other than JT personnel, include procedures for hand-off of data to the responsible organization. Tie the discussion to the specific responsibilities of each party as established in the applicable memorandum of agreement or memorandum of understanding contained in Annex E.)

#### **4.4.5 Data Control and Accountability**

(Include specific procedures for data control and accountability of test data (e.g., correct labels, archived, logged into data library, backup system to avoid data contamination or loss). Address how your data library system is designed and used. Address how data anomalies will be handled to include a data anomaly board, chaired by the Technical Director, to review and adjudicate all data anomalies that occur in a test event.)

#### **4.4.6 Data Quality Assurance and Quick Look Review**

(Specific areas addressed in the data quality assurance and quick look review process include: data format (e.g., complete, consistent, readable by conversion and analysis tools), accuracy (e.g., error rates, in-bounds checks, reasonable values, and consistent), complete (e.g., data covers full time intervals, missing data identified and resolved), questionnaires (e.g., completely filled in, legible, OCR readable, etc.), data control (e.g., correct labels, archived, logged into data library, backup system to avoid data contamination or loss), use of the Test Incident Report (included in Annex F) and anomalies (e.g., partial data and data collected that appear outside of expected norm).)

#### **4.4.7 Data Library System**

(Discuss items below)

##### **4.4.7.1 Library Archiving Procedures**

##### **4.4.7.2 Data Access and Control**

##### **4.4.7.3 Primary and Backup Database Process**

#### **4.4.8 Data Transportation**

(Describe the procedures for transporting and/or transferring data from the test site. Include information.)

#### **4.4.9 Data and Physical Security**

(List points of contact for security matters should security reports, violations, or questions arise during execution of the test. Address any special requirements for the test team to utilize or store collateral classified and special compartmented information (SCI) or data and how to gain access to the designated SCI facility and related level of security clearance required for personnel.)

**4.4.10 Safety**

(Overview safety importance. Address coordination in terms of names and contact information with agencies outside of the JT who will be involved in safety reporting (e.g., range safety officer for a test conducted at a range or training facility). Include a statement that in the event of death or injury of JT personnel or personnel participating in a test event, the Deputy Director for Air Warfare, JT&E Program Manager, and Action Officer will be verbally notified as soon as possible and a written report will be provided within 24 hours.)

**4.5 Data Analysis Plan**

(Briefly describe the procedures that will be used to analyze the data, types of analysis that will be used, analytical software that will be used [i.e., SAS, Mini-TAB], and analysis products. The discussion should include a short discussion of the types of data that will be analyzed [quantitative and qualitative data with examples], the statistical methods expected to be used [e.g., parametric and nonparametric statistics for comparative data, sample statistics, and trend analysis methods], confidence intervals and statistical confidence information, sample size determination, and tie the discussion to the computation of the test measures contained in the Dendritic and IDRL in Annex C. In the discussion of analytical software requirements (tools), provide information on the type of tool(s) that will be used and acknowledge that you have validated the data formats required for the tools and that this was taken into consideration in the IDRL delineated data formats. The level of description of tools should include tool name [e.g., SIMPROCESS], tool purpose [e.g., develop process model to track targeting information across time sensitive targeting cycle functions], and provide an architecture figure if the tool must interoperate or feed other analytical tools. One short paragraph per analytical tool or analysis method should be sufficient. Wherever possible, all JTs should investigate and use same tools [e.g., SIMPROCESS, COMBAT, etc.] as other JTs to conserve program financial resources and reduce time required to train personnel in new analytical tool requirements.)

**4.6 Evaluation Plan**

(Describe the procedures that will be used to convert the test statistics from the data analysis that answer the test issues and sub-issues into an operational context that has meaning to the warfighter community [e.g., use of military operators who have expertise in the subject area to review and assess the test findings to ensure that the conclusions are relevant in a warfighter context and that recommendations from the test can be operationally implemented].)

## **CHAPTER 5 TEST PRODUCTS**

(2 - 4 pages)

### **5.0 Overview**

(This chapter could be quite short or could be more extensive – depends on the stage of the JT. Consider test products that could emerge from the test event. It is important to maintain and forecast your vision of products from the test event and the overall Project that will be delivered to the warfighter customers. It is suggested that you list the potential test products and provide a description, projected benefits, and organization(s) that should have an interest in adopting and institutionalizing the products [funding, maintenance, and ownership]. Suggest illustrate in a table format with a brief discussion on the contents of the table. DOTMLPF changes should be considered in this strategy. Provide perspective on what the expected impact will be on warfighter operations and capabilities. Suggest annotate with an asterisk those items in the table that apply as deliverables from this test event.)

### **5.1 Test Product Description**

### **5.2 Test Product Transition**

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## **ANNEX A ACRONYMS**

(List only acronyms that are within the DTP including its Annexes.)

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## **ANNEX B DEFINITION OF TERMS**

(Provide the definition of terms that are unique to the test subject area or have multiple definitions. The definitions should be consistent with those used in the Joint Publications. If not in a Joint Publication, provide the source reference. Purpose of this Annex is to ensure that all readers and users of this DTP have the same understanding of terminology and to prevent unnecessary confusion.)

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## C.2 IDRL

(Present in a table and use the discussion to link the issues and lower-level sub-issues from the Dendritic in C.2 above to the IDRL. Contents of the IDRL include the data elements, point of collection [e.g., CAOC], data source [e.g., CAOC Target Assignment Workstation], data method [e.g., automated, manual form], frequency [every fourth sweep of radar], instrumentation [list type of instrumentation required to collect the data such as TSPI, stop watch], data medium [e.g., CD, 8 track tape], data format [e.g., ASCII, IEEE 1278.3 Protocol Data Unit], and MOE or MOP that the data will be used for calculation [you can either list the measure in words or use the reference number in the dendritic table if you assigned one]. The IDRL must also indicate the data collection sample size to obtain statistical significance. If the sample size is the same for all data elements, it can be provided in the lead-in paragraph. During the test, it is suggested that the test manager and lead analyst use the IDRL as a test control checklist by adding a column or cells that correspond to the number of iterations (sample size) collected as the test progresses. Once all required data are collected, the test manager and lead analyst can redirect data collection activities to those areas that need additional or more focused attention.)

**Table C-2. Integrated Data Requirements List (IDRL)**

(Items listed in each cell are generic and shown for illustrative purposes only. Actual measures and data elements would be specific to each Sub-Issue (or lower level) and the distinction between each would be evident. Details for all other columns would also be specific listing actual collection nodes, media, specific manual form, and name of the questionnaire. There should be no TBDs or generic information listed in the IDRL since this is the single integrated document that lists all data to be collected, where, when, how, and by whom.)

Issue	Sub-Issue	Measure	Data Element	Scale Units	Sample Size	Data Source	Data Media	Data Format	Data Structure	Instrumentation	Test Condition
1.0	1.1	1.1.1 Percent Mission Success	Nbr of successes	Nbr Count	n	Nodes	Manual Form	Number	Xx	Axim PDA	
			Nbr of attempts	Nbr Count	n	Nodes	Manual Form	Number	Xx	Axim PDA	
1.0	1.1	1.1.2 Mean Transmission Time	Time received	Min	n	Nodes	Manual Form	Time	HH:MM:SS	Axim PDA	
			Time sent	Min	n	Nodes	Manual Form	Time	HH:MM:SS	Axim PDA	
1.0	1.1	1.1.3 Percent Favorable User Rating	Nbr of favorable user ratings	Nbr Count	n	Nodes	Questionnaire	Number	Xx	Web Server	
			Nbr of unfavorable user ratings	Nbr Count	n	Nodes	Questionnaire	Number	Xx	Web Server	
1.0	1.2	1.2.1 Percent Personnel Trained	Nbr of personnel trained	Nbr Count	n	Training Class	Manual Form	Number	Xx	Axim PDA	N/A
			Nbr of personnel performing operations	Nbr Count	n	Nodes	Manual Form	Number	Xx	Axim PDA	N/A
1.0	1.2	1.2.2 Mean Training Time	Time training began	Min	n	Training Class	Manual Form	Time	HH:MM:SS	Axim PDA	N/A
			Time training finished	Min	n	Training Class	Manual Form	Time	HH:MM:SS	Axim PDA	N/A
1.0	1.3	1.2.3 Percent	Nbr of favorable trainee ratings	Nbr Count	n	Training Class	Questionnaire	Number	Xx	Web Server	N/A

Issue	Sub-Issue	Measure	Data Element	Scale Units	Sample Size	Data Source	Data Media	Data Format	Data Structure	Instrumentation	Test Condition
		Favorable Trainee Rating	Nbr of unfavorable trainee ratings	Nbr Count	n	Training Class	Questionnaire	Number	Xx	Web Server	N/A
2.0	2.1	2.1.1 Percent System Depictions	Nbr of system depictions corresponding to actual depictions	Nbr Count	n	Nodes	CD-RW	Number	Xx	PC Data Logger	N/A
			Nbr of depictions	Nbr Count	n	Nodes	CD-RW	Number	Xx	PC Data Logger	N/A

## **ANNEX D CONSOLIDATED RESOURCE ESTIMATE (CRE)**

### **D.0 Introduction**

(Provide short overview of budget required to support this test event.)

### **D.1 CRE Detail**

(The Test Event CRE table should provide sufficient detail to indicate the major items that are utilizing OSD funds [use standard CRE outline content – omit those items that do not apply]. This should be done as early as possible during DTP planning.)

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## **ANNEX E FORMAL AGREEMENTS**

(Provide a copy of all MOAs, MOUs, or Letters of Agreement (LOAs) and Letters of Intent (LOI) that will result in the providing of test resources [the test participants needed to execute the test scenario] or necessary test support [e.g., data collection instrumentation, data reduction assistance, etc.]. All memorandum and letters should be signed.)

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## **ANNEX F DATA COLLECTION FORMS**

(Ensure complete copies of all Data Collection Forms, manual and automated, are included in this Annex. This includes questionnaires, TIR forms, reliability data collection forms, screen capture images for automated data collection, etc. It is not necessary to insert images of automated data collection devices [e.g., Cockpit Heads-up Display, Link 16 Displays, EPLRS displays, etc.] unless they are needed to orient a data collector or analyst in the data collection or analysis tasks. Key element – no one should guess at what is intended during a test or in the post-test analysis activities. [Note: Necessary motherhood statement- Questionnaires have been a historical data collection problem area for JTs. The JTD and Technical Director have the responsibility to ensure that all data collection tools and items support the data collection requirements without introducing bias into the test data.])

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## **ANNEX G INSTRUMENTATION PLAN**

### **G.0 Introduction**

(Provide short overview of the type of instrumentation required to support this test event.)

### **G.1 Instrumentation List**

(In a table, list all pieces of instrumentation [e.g., stopwatches, TSPI, tracking radars by type, VOICEIT systems, video cameras by type, etc.], quantities required, where located during the test event execution [e.g., data collector, WSMR south range, simulation facility control room, etc.], ownership [e.g., JT, WSMR, 101st Airborne, NTC, etc.], calibration requirements [e.g., bore sight daily, N/A, etc.], and a column for additional comments (optional).)

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## **ANNEX H SECURITY**

(Address the security requirements for this test event. This Annex needs to be complete. Below are the types of factors that must be addressed in this annex. It is suggested that you extract the Security Annex from the PTP and place it here. Ensure that each of the below sub-paragraphs are addressed. Do not refer the reader to the PTP.)

### **H.0 Overview**

### **H.1 Security of Classified Information**

### **H.2 Responsibilities**

### **H.3 Physical Security**

### **H.4 Visitor Control**

### **H.5 Information Security**

#### **H.5.1 Media Classification**

#### **H.5.2 Data Collection Materials**

#### **H.5.3 Storage and Destruction of Classified and Sensitive Material**

#### **H.5.4 Marking Magnetic Media**

#### **H.5.5 Transferring Data from a Classified PC – Compatible System to a Less - Classified (or Unclassified) Medium**

#### **H.5.6 Courier Responsibilities**

#### **H.5.7 Transportation**

#### **H.5.8 Wrapping Requirements**

#### **H.5.9 Incidents and Reporting**

### **H.6 Computer Security (COMPUSEC)**

### **H.7 Computer System Security Requirements**

### **H.8 Identification and Authentication**

### **H.9 Communications Security (COMSEC)**

### **H.10 Security Emergency Procedures**

**H.10.1 Fire Emergency**

**H.10.2 Hazardous Weather**

**H.10.3 Medical Emergency**

**H.10.4 Loss of Utilities**

**H.10.5 Acts of Violence**

## **ANNEX I MODELING AND SIMULATION PLAN**

(As required. 12 – 15 pages. Note: when working M&S related planning issues, the M&S planning team should have a checklist that includes collection of relevant cost data that will be used in the CRE to cost out the M&S requirements)

### **I.0 Introduction**

### **I.1 Modeling and Simulation Requirement**

#### **I.1.1 Simulation Test Overview**

(For each test event that explicitly uses a simulation environment vice a field test environment, state purpose and objective of the simulation test event, describe each event using a figure that illustrates the operational environment relevant to that specific test event (e.g., scenario with symbolic laydown of Blue and Red forces) that is to be created and briefly discuss the type of interactions that are to occur within that event (e.g. C3 environment with operators in the loop to determine capability to receive and process intelligence data from ISR system Y). If the scenario is classified, use a notional laydown with all simulation objects represented in the figure (e.g. one Rivet Joint, one AEGIS, etc.).)

#### **I.1.2 Description**

(Briefly describe each model, simulation, and laboratory facility, and their contributions, that is intended to be used in the JT to include: name of simulation, software language supporting model or simulation, simulation standard compliance (e.g. Distributed Interactive Simulation IEEE 1278.4), who owns it (configuration management authority), describe basic function(s) (what does it model or simulate), purpose in your JT (e.g. what limitation is it addressing), and any known limitations of the M&S to include your mitigation strategy.)

#### **I.1.3 Modeling and Simulation Architecture**

(Using a graphical figure, illustrate and discuss the architecture that forms the M&S test environment that is required to support the JT to include type of communications links, simulation control, compliance with High Level Architecture standard IEEE 1516 series, and what simulation objects will be included in the simulation environment. Provide a figure that graphically illustrates the operational environment (e.g. scenario with symbolic laydown of Blue and Red forces) that the architecture is to create and briefly discuss the type of interactions that are to occur (e.g. C3 environment with operators in the loop to determine capability to receive and process intelligence data from ISR system Y).)

#### **I.1.4 Simulation Facilities**

(Describe the facilities that will be used to support the simulation environment: location, capability, security constraints such as OPSEC and classification levels, facility scheduling, special instrumentation requirements, data collection and reduction capability, previous applications for this type of M&S environment (support VV&A decision of simulation federation), experience in integrating M&S into their facility, and any limitations and constraints that might be imposed in support of the JT.)

**I.1.5 Integration of Models and Simulations**

(Address the integration control document that will be developed to support building the M&S test environment, include an M&S integration schedule with milestone review points for each simulation test environment to be created, and describe role of the test project in relation to the M&S simulation facilities participating in the simulation event. Provide an overview of M&S working group to include chair and level of participation of each facility representative. Address risk-reduction methods that you will employ to ensure that the M&S integration is complete and on schedule.)

**I.2 Verification, Validation, and Accreditation Plan**

(Provide sufficient detail that explains the Joint Test Director's plan for validating and accrediting models and simulations that will be used to generate data that are intended to answer test issues. It is important that all participants in building M&S environment coordinate in this activity to ensure that all required VV&A activities can be achieved – sometimes proprietary constraints popup that prohibit required VV&A activities. This impacts cost and capability to integrate M&S. The test team must be intimately familiar with M&S terminology to enable the development of a rational approach to VV&A.)

**I.2.1 VV&A Approach**

(Briefly discuss how VV&A will be accomplished (use a figure to illustrate the process), address level of verification that is planned (normally not done unless M&S is created for your purpose), provide overview of intended validation and accreditation process to include roles and responsibilities of JT and facility personnel, and address VV&A controls such as a VV&A panel to review verification and validation results.)

**I.2.2 VV&A Schedule**

(Provide a figure that illustrates the milestones and goals for VV&A activities.)

**I.2.3 VV&A Report**

(One paragraph - the Test Director is normally the accrediting agent and signs formal letter accepting or rejecting M&S verification and validation results in support of JT requirements.)

**I.3 Verification, Validation, and Certification of M&S Data**

(Provide approach for verifying and validating data that are used by M&S for the purpose of causing one or more events to occur in a simulation test, mini-test, and/or field test, as appropriate (e.g. data used in models and simulations will be verified to be representative of actual real-world data based on source of the data or by validation that the data being used by a simulation compares to real-world event data). Validation will be performed using subject matter experts coupled with standard statistical techniques and methods. The Data Certification agent is normally the Joint Test Director or the JT Technical Director.)



## **ANNEX J REFERENCES**

(List any applicable references used to create the DTP.)

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## **ANNEX K DISTRIBUTION LIST**

(Planning Committee members; Technical Advisory Board members; Service, JFCOM, and Joint Staff representatives to the Senior Advisory Council; principle organizations having an interest in your JT (suggest use JWAG list as a guide); Program Office Action Officer, Technical Advisor, supporting FFRDCs, and Library. A hardcopy and electronic copy is required by the library. Be sure to complete the Defense Technical Information Center (DTIC) form and submit a copy of the final document to the DTIC.).

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## **APPENDIX M-2 QUICK LOOK REPORT (QLR) OUTLINE**

(Typically formatted as a DMS message but may be formatted in Word if desired.)

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(THIS MESSAGE MAY BE CLASSIFIED OR UNCLASSIFIED)

RTTUZYUW RUCBTEV0001 1231234-UUUU--RHMCSUU RUCBTEV

ZNR UUUU

R 011234Z MMM YY

FM TEST PLAD ADDRESS//Releaser code//

TO INTERESTED PARTIES//

SUBJ/QUICK-LOOK REPORT OF TEST NAME JOINT TEST (JT)

REF/A/(Charter Letter Reference)

REF/B/(Program Test Plan Reference)

REF/C/DOC/.../...// (Detailed Test Plan Reference) -- Others as applicable

NARR/REF A IS ... REF B IS... REF C IS...//

RMKS/1. SUMMARY. THIS IS A QUICK-LOOK REPORT OF (Test Name) JT PROJECT, PERFORMED UNDER THE CHARTER OF THE DIRECTOR OF OPERATIONAL TEST AND EVALUATION (DOT&E). THE PURPOSE OF THE (Test Name) IS TO DETERMINE (Blanket Statement Of Test Purpose From Charter Letter). THE TEST WAS CONDUCTED PER REFERENCES (A), (B), AND (C). ALL INFORMATION IN THIS REPORT IS BASED ON PRELIMINARY DATA COLLECTED DURING THE TEST ACTIVITY AND HAS NOT BEEN ANALYZED AT THIS POINT. FURTHER ANALYSIS IS REQUIRED TO DEVELOP RELEVANT FINDINGS AND RECOMMENDATIONS. THE TEST REPORT WILL BE COMPLETED WITHIN FORTY-FIVE DAYS AFTER RECEIPT OF ALL TEST DATA FROM PARTICIPATING ORGANIZATIONS.

2. TEST VENUE: (Provide specific test venue, inclusive dates, and test location information)

3. THE OBJECTIVES OF THIS TEST WERE: (Base These on Your Test Issues and Sub-issues – Consider Using Words That Resonate With Your Warfighting and/or Acquisition Customer)

A. ...

B. ...

C. ...

4. TEST PARTICIPANTS INCLUDED: (Provide In the Form of Organizations Only –No Names)

A. UNIT (Include Primary Weapon System If Part of Test)

B. (Others as Required)...

5. MAJOR TEST ASSETS SCHEDULED/UTILIZED: (Where There Are Unique Test Specific Support Assets Participating, Show the Number of Sorties/Vehicles/Weapon Expenditures Scheduled and Number Actually Utilized)

6. TEST OBSERVATIONS: THE FOLLOWING ARE OBSERVATIONS OF NOTE. IT IS EMPHASIZED THAT THE OBSERVATIONS WERE MADE FROM RAW DATA AND PRELIMINARY ANALYSIS. IT IS POSSIBLE THERE COULD BE CHANGES IN TEST FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS. (If You Have Validated Test Findings, Conclusions, And/Or Recommendations, Be Sure To Clearly Indicate Those That Are Validated and Those That Are Not)

A. OBSERVATION 1: (State Any Test Findings (One Sentence Statement of Fact), Any Operational Impact Conclusions, and Any Recommendations That Can Be Implemented Prior To Release Of The Test Report – IF ANY)...

B. OBSERVATION 2: (Ditto) ...

(This Section Of Test Observations May Be An Area Where You Can Use Your Objectives As The Basis For Observations, i.e. Impact On Communications, Impact On Weapon Employment, Tactics, Data Link Failures, Etc.)

7. TEST DIRECTOR COMMENTS.

8. ANALYSIS OF VALIDATED TRUTH DATA WILL PROVIDE THE BASIS FOR FINAL TEST FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS AND WILL BE PROVIDED TO ADDRESSEES WHEN COMPLETE. POINT OF CONTACT FOR FURTHER INFORMATION IS...//

BT

#0001

NNNN

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## **APPENDIX M-3 TEST EVENT REPORT (TER) OUTLINE**

The following outline provides guidelines for developing a Test Event Report. This report is a key management tool for the Joint Test Director (JTD) and DOT&E. Should the JTD determine that it is not feasible to meet the Deputy Director for Air Warfare's timeline, a waiver request shall be submitted to the JT&E Program Manager with an explanation and date that the report will be submitted. A test event report is preliminary in the sense that it reports only one test event in a series, and it is possible that a larger picture and synergistic factors may alter or modify the test findings, conclusions, and recommendations later.

Emphasis should be on test results, not test methodology. The users of the report are the joint and Service decision makers, warfighter operators, and/or testing community (test methodology and processes). Like the final report, the test event report provides findings, conclusions, and recommendations. If at all possible, an estimate of what the corrections will cost in terms of dollars, time, interoperability, training, etc., should be included.

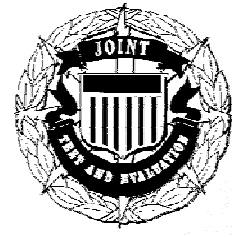
Where possible, use figures and tables to illustrate your test findings and use short, but complete, discussions to substantiate them. Ensure that the document is clear, concise, and understandable to those in the decision making coordination chain and operational users. When in doubt, add more detail to eliminate questions. Suggest using someone from the user community and ask them to read it and provide feedback on the report's "user friendliness".

The test event report is a DOT&E document of record, so follow the JT&E Style Guide (e.g., two spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to military Services, etc.). Minimize repeating information across the chapters and annexes. A copy of each test report will be sent to the JT&E Program Office (assigned Action Officer and Technical Director) and to the supporting FFRDC representatives for review and comment. Only the title and signature page requires the JTD's signature.

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**JT TITLE**  
**(JXXX) Joint Test**



**(Test Title) Test Event Report**

**Month Year**

---

**(Picture or Logo, if desired by Test Director)**

Submitted By: Joint Test Director Name, Rank, Service  
Joint Test Director  
JT Name

**Signature Line**

## DTIC FORM

Be sure to complete the Defense Technical Information Center (DTIC) form and submit a copy of the final document to the DTIC. The DTIC is a repository for all official Department of Defense documents that include test plans and test reports. Personnel and organizations that have access to the DTIC archives can perform a word search, which is executed against the DTIC form abstracts that are resident in the DTIC database. This provides the means for others performing research to quickly identify and request copies from the DTIC library. The JT&E Librarian can assist in guiding the Joint Test Director to the subject form.

<b>REPORT DOCUMENTATION PAGE</b>			<b>Form Approved</b> <b>OMB No. 0704-0188</b>		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>					
<b>1. REPORT DATE (DD-MM-YYYY)</b>		<b>2. REPORT TYPE</b>		<b>3. DATES COVERED (From - To)</b>	
<b>4. TITLE AND SUBTITLE</b>		<b>5a. CONTRACT NUMBER</b>			
		<b>5b. GRANT NUMBER</b>			
		<b>5c. PROGRAM ELEMENT NUMBER</b>			
<b>6. AUTHOR(S)</b>		<b>5d. PROJECT NUMBER</b>			
		<b>5e. TASK NUMBER</b>			
		<b>5f. WORK UNIT NUMBER</b>			
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>			
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>		<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>			
		<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>			
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b>					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b>					
<b>15. SUBJECT TERMS</b>					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>			<b>19b. TELEPHONE NUMBER (include area code)</b>

**Standard Form 298 (Rev. 8-98)**  
Prescribed by ANSI Std. Z39.18

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## **EXECUTIVE SUMMARY**

(6-8 pages)

Your audience for this ES is military pay grade O-6 and above and Government Service [GS] level 15 and above. Keep the information at a level that conveys your JT's purpose, how the test improved current warfighting capabilities, and only enough information about the test execution procedures to lay the groundwork for the body and annexes of the test event report. The executive summary may be the most important section for "selling" the test recommendations and ensuring that your test products are accepted and implemented.

### **ES.0 Introduction**

(Brief overview that indicates the project is under the auspices of OSD, DOT&E and that the Services and joint community considered the test necessary. Identify the lead Service and any co-sponsoring Services and Commands, and provide a brief description of the operational capability impacted by the problem addressed by this test report.)

### **ES.1 Problem Statement, Test Issues, and Test Objectives**

#### **ES.1.1 JT Problem Statement**

(Address the problem statement in an operational context. Summarize a description of the problem. Use a figure if necessary to convey this information. Minimize the discussion to only the facts.)

#### **ES.1.2 Test Issues**

(Extract the issues from the program test plan (PTP) and add any significant sub-issues of interest to senior officers and civilians who will implement your recommendations. Highlight those issues and sub-issues this test event addressed.)

#### **ES.1.3 Test Objectives**

(Specific statement of intent for this test event, [e.g., assess the impact of GPS EW on precision weapons and related communications systems in a desert environment].)

### **ES.2 Test Concept Overview**

(If the event is a baseline test, list what it provided. If it is an enhanced capability event, contrast the findings with the baseline test. Explain how this test event fits into the overall test concept. List in table format the organizations that participated in the test event. List test articles [changes to: TTP, C2 systems, processes, and evaluation of training packages and methods developed by the JT in execution of the test event] that were tested and provide comments on how these articles impacted warfighting capability before the test event and contrast with projected post-test capabilities [enhanced warfighting capability]. Limit to information necessary to place the findings, conclusions, and recommendations in context.)

### **ES.3 Significant Findings, Conclusions, and Recommendations**

(Note that the findings are preliminary pending execution and analysis of all test events. Answer the principal issues addressed in ES.2 above. Use bullet format by stating test findings, conclusions, and recommendations. *If you do not have a recommendation for a flag officer to implement, the finding should not be in the ES.* Keep in mind that a finding is a single sentence

statement of fact based on rigorous test methodology and data analysis. If you anticipate a problem with test product transition, include appropriate comments here.)

#### **ES.4 Test Products**

(Table format if appropriate: name of candidate test products items, description, who is accepting transition, and any comments [if you are having a problem in transitioning test products, this may be the last chance to address this]. Recommendations concerning test products can be included and amplified here.)

#### **ES.5 Summary**

(Address only key things that you want senior officials to take away. Remind them that this report is preliminary and covers only one test event of X planned. Be aware that the reviewers may read this executive summary first or may only read this summary paragraph.)



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## **CHAPTER 1 INTRODUCTION**

(4 - 5 pages)

### **1.0 Overview**

(Brief overview that indicates that the test event is part of a program conducted under the auspices of OSD, DOT&E and that the Services and Joint community have agreed that the test is necessary. Identify the lead Service(s) and primary sponsoring and participating organizations.)

### **1.1 Joint Test Background**

(Provide a brief version of the information presented in the PTP, Section 1.1: a brief description of the operational capability impacted by the problem addressed by this test event, a short discussion of the problem statement, and an overview of the principal issues addressed by the test event [questions that this test project will answer].)

### **1.2 Authorizing Charter**

(Provide the charter date, issuing authority, and a brief summary of the JT purpose as stated in the charter.)

### **1.3 Description of Test Articles**

(Briefly describe the test articles that were tested and evaluated [changes to JTTP and MTTP and system of systems architectures, CONOPS, a new or different process, model, or test methodology, etc.]. List any new TTP, modified architectures, and process models that were tested. Use figures and tables where necessary.)

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## CHAPTER 2 TEST CONCEPT OVERVIEW

(10 - 15 pages)

### 2.0 Introduction

(Provide short paragraph that explains the development of the test concept and methodology in relation to resolving the test issues and how this test event supports the overall test. Only provide enough information so the reader has an understanding of the test event that was executed including limitations and constraints that must be considered when using the test findings, conclusions, and recommendations.)

### 2.1 Problem and Test Issues

(Directly out of the PTP. Highlight those issues and sub-issues this test event addressed.)

### 2.2 Test Objectives

(Specific statement of intent [e.g., assess the impact of GPS EW on precision weapons and related communications systems in a desert environment]. Emphasize those objectives addressed by this test event.)

### 2.3 Test Event Venues and Scenarios

(Briefly describe the venue(s) for the test event. Provide a general scenario overview and a description of how the test event scenario contributed to the general overall scenario.)

### 2.4 Test Event Constraints and Limitations

(In bullet form, list all test event constraints, limitations, and the mitigation measures used to offset each constraint and limitation. If there was no mitigation to a constraint or limitation, state the impact to the test event and the impact on the test findings and conclusions.)

### 2.5 Supporting Organizations

(Simply list in a table all the organizations supporting test event planning, execution, reporting, and test product transition.)

### 2.6 Test Event Schedule

(Illustrate with a Gantt chart type figure. Indicate all test event planning, execution, and post-test milestones. Include pre-test rehearsals, major coordination meetings, training periods, post-test activities such as GOSC and JWAG meetings, and Quick Look Report date. If there are GOSC or JWAG meetings planned after the test event report release, be sure to indicate those as well.)

### 2.7 System Descriptions

(This includes TTP, components of system of systems, architectures, process models, etc. Purpose of this paragraph is to put the findings, conclusions, and recommendations in a meaningful context so the reader can understand the importance of a test finding, why specific conclusions were reached, and the importance of implementing recommendations. Figures and photos are good, but should be kept as small as possible without losing content. All figures and photos must be relevant to the finding discussions. If applicable, add mission profiles or other similar type information that provides better understanding of test findings and conclusions.)

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## **CHAPTER 3 TEST FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

(As many pages as required; however, discussions should be short and to the point. Findings must be one-sentence statements of fact. Conclusions can be three to five sentences. Recommendations should be succinct and clearly assign an action to an organization. Advise the reader again that this report deals with one test event and that the big picture is yet to come in the Final Report.)

### **3.0 Introduction**

(Discussion can include data quality, how it represents operational environment, operational realism, etc. Chapter Two and this lead-in are intended to put the reader at ease and prepared to accept the test event findings, based on test rigor, and to implement the related recommendations. This introduction and Chapter Two should be written so that none of the findings come as a surprise.)

### **3.1 Summary of Significant Findings**

(Bullet format. Highlight and lead off with items that are significantly important to improving operational readiness or capability. As a general rule, there should be no more than four or five significant findings. These should also be listed in the Executive Summary. NOTE: Findings are statements of fact, not conjecture. Findings should be based on what actually occurred during your test event regarding your test issues.)

### **3.2 Findings Overview**

(Introduce the findings with an overview of their nature [e.g., system accuracy problems] and the operational elements impacted [e.g., navigation]. Apply a title consistent with the finding that is being reported [can use title in lieu of “Issue” terminology used in 3.3.1 below]. Explicitly address test issues and sub-issues (at least two layers down) or relate the discussion to the issues and sub-issues. This is the report that provides the “answers” to the test issues. If not organized by Issue, the discussion must establish a clear and distinct linkage to the Issues and answer all Test Issues. Compile a master list and check off each one until all are addressed. If there are “incidental” findings – those that emerge but are not clearly aligned with test issues and sub-issues – they should be listed after all test issues and sub-issues are addressed. [Note: Exception should be made if the incidental finding is of major importance.] The following format should be used for each finding: Discussion, Finding, Conclusion [more than one finding can support a single conclusion], and Recommendation [normally associated with a conclusion statement].)

#### **3.2.1 Issue 1 Discussion**

(Answer the Test Issue. Address factors that place this answer into context. Consider the applicable sub-issues (and/or measures) that led to this answer. Address the impact this answer has on joint warfighting capability, systems, organization, doctrine, TTP, and/or training.)

##### **3.2.1.1 Sub-Issue 1.1 Discussion**

(Answer the Sub-Issue. Address factors that place this answer into context. Consider the applicable sub-sub-issues (and/or measures) that led to this answer. Address the impact this answer has on joint warfighting capability, systems, organization, doctrine, TTP, and/or training.)

**3.2.1.1.1 Finding(s)**

(Each finding should contain summarized statistics or graphical analysis figures [e.g., box plots, trend analysis plots, bar graphs, summary tables, etc.] based on the measures for this sub-issue. Care must be taken to ensure that each is self-explanatory in terms of legends and markings, titles, etc. – never assume the reader will understand. Multiple findings can support the same conclusion and a single recommendation as long as they are closely related or at least deal with the same or similar issue [e.g., navigation accuracy is degraded during operations near high voltage lines]. Findings should always be “past” tense since they are what actually occurred.)

**3.2.1.1.2 Conclusion(s)**

(There can be more than one conclusion per finding but each conclusion must be clearly linked to the stated findings. Conclusions should be stated in “present” tense as they are theories derived from the findings.)

**3.2.1.1.3 Recommendation(s)**

(There can be more than one recommendation per conclusion but must be clearly linked to the stated conclusions. Conclusions justify each recommendation. Recommendations should be stated in “future” tense since they indicate actions to be taken to address the conclusions. Identify the specific organizations to act on each recommendation whenever possible.)

**3.2.1.2 Sub-Issue 1.2 Discussion****3.2.2 Issue 2 Discussion****3.3 Summary**

(Required if there is more than one recommendation. Briefly summarize the overall impact of the findings on warfighting or test capability. Use one paragraph if they are similar or separate paragraphs if the impacts are dissimilar. Summarize the recommendations, detailing who has the action, the benefits if they are implemented, and the operational, training, and dollar costs of their implementation, if known.)



## CHAPTER 4 TEST PRODUCTS

(2-5 pages)

### 4.0 Introduction

(List the test event test products and provide a brief description, projected benefits, and organizations that have an interest in adopting and institutionalizing the products (funding, maintenance, and ownership). Illustrate in a table format with brief words discussing the contents of the table. DOTMLPF changes should be considered in this strategy. Provide perspective on what the expected impact will be on warfighting operations and test capabilities. If this is a baseline test, there may be no test products. Explain why there are none if this is the case.)

### 4.1 Test Product Description

(Use a table format that lists each specific test product, describes the product, designates the organization that is adopting the product, and reference the signed memorandum of agreement (if applicable) between the test and accepting organization. The JTD must coordinate all such MOAs with the JT&E Program Manager. Caution must be exercised to avoid financially or legally obligating OSD (DOT&E) in any agreement that is in force after the JT scheduled shutdown date.)

### 4.2 Test Product Transition

(Discuss benefits to the joint warfighting community; pinpoint the specific part of the community for which the product is useful. Also discuss coordination activity to transition the test product, any financial factors such as fielding and maintenance costs, and coordination with activities such as ALSA, Joint Warfighting Center (JWFC), or USJFCOM. Be aware that each of the four Services has a vote on whether or not TTP are adopted. Be sure to include principle Service representatives in the process of transitioning all test products.)

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## **ANNEX A ACRONYMS AND ABBREVIATIONS**

(List only acronyms that are within the DTP including its Annexes.)

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## **ANNEX B DEFINITION OF TERMS**

(Provide the definition of terms that are unique to the test subject area or have multiple definitions. The definitions should be consistent with those used in the Joint Publications. If not in a Joint Publication, provide the source reference. Purpose of this Annex is to ensure that all readers and users of this report have the same understanding of terminology and to prevent unnecessary confusion.)

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## **ANNEX C ANALYSIS**

(As required. This annex could contain supporting analytical material that is too detailed for the main body of the report. Caution needs to be exercised to avoid the tendency to place a level of detail in this annex that would cause the users and coordinating personnel to not read it.)

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## **ANNEX D MEMORANDUMS OF AGREEMENT**

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## **ANNEX E REFERENCES**

**(As required)**

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## **ANNEX F DISTRIBUTION LIST**

(Insert the latest distribution list from the JT&E Program Office. Delete any individuals not associated directly with your project and add any specific individuals who are participating in the test or organizations supporting the test.)

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## **APPENDIX M-4 CLOSEDOWN AND TRANSITION PLAN (CTP) OUTLINE**

The following outline provides the guidelines for developing the JT closedown and transition plan. Transition and closedown are the last phase of a JT and perhaps the most demanding in terms of the work to be accomplished within the time available. The primary purpose of the closedown and transition plan is to document essential actions to ensure a smooth, coordinated transition of personnel, equipment, facilities, test products and facilities, and final reporting during the deactivation of a JT. In general, closedown actions include preparation and coordination of the final report and briefings, release of personnel, personnel efficiency reports, personnel awards and recognitions, accounting for and return of property, termination of contracts, termination of support agreements, close out of fiscal accounts, return of facilities, and development of the JT lessons learned report.

The closedown and transition plan also documents the strategy and milestones for transitioning test products and capabilities to customers (i.e., Combatant Commands, Joint Staff, Services, United States Joint Forces Command (USJFCOM), National Agencies, program offices, technical organizations, etc.). The plan must contain information on each test product being developed, planned transition strategy to an identified customer, and a schedule for product transfer. JT&E Program Office (JPO) policy states that one year prior to JT completion, the Joint Test Director (JTD) should have a signed closedown and transition plan that outlines the test product transition process and, when applicable, provides information on funding status (e.g., POM status) needed to develop and/or sustain the test product. The closedown and transition plan is not intended to be a standalone document; more detailed information on the JT can be referenced in the plan such as the program test plan (PTP), detailed test plans (DTP), test event reports, final report, and JT lessons learned report. The JTD should initiate development of a closedown and transition plan as early as possible within the JT life cycle. A draft closedown and transition plan must be submitted to the JT&E Program Manager for review no later than 12 months after charter. The final signed closedown and transition plan and briefing will be provided no later than 12 months prior to program closedown. However, the closedown and transition plan is considered a “living” document and will be updated as required until the JT is officially closed.

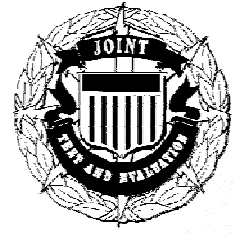
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**JT&E TITLE  
(JXXX)**

**Joint Test**



**Closedown and Transition  
Plan  
Month Year**

(Picture or Logo, if desired by Test Director)

Submitted By:  
Joint Test Director Name  
Rank, Service  
Joint Test Director  
JT Name

Approved By:  
J. H. Thompson  
Program Manager  
Joint Test and Evaluation  
DOT&E

Signature Line

Signature Line

**DISTRIBUTION STATEMENT:** Distribution limited to US Government agencies and their supporting contractors. Other requests for this document shall be referred to DOT&E-JT&E.

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## **CHAPTER 1 INTRODUCTION**

### **1.0 Purpose**

(Brief statement that introduces the purpose of the closedown and transition plan and major topics covered.)

### **1.1 JT Background**

### **1.2 Authority**

(Reference the JT's charter letter and JT&E Program Handbook.)

### **1.3 Implementation and Control**

(Brief description on how the JTD will implement the closedown plan and monitor the progress of action items.)

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## CHAPTER 2 CLOSEDOWN PLAN

### 2.0 Closedown Strategy

(In this section, as a minimum, the following items should be covered in detail: The final report and briefings, personnel, disposition of assets, closeout of fiscal accounts, termination of contracts and support agreements, and the JT lessons learned report. For all these items, the closedown strategy should specifically identify the action items, who from the JT is assigned primary responsibility to address each action item, and when it will be started and completed. The following table is an example format that can be used to list and track action items.)

Number	Action Item	Point of Contact	Start Date	End Date
M-1	Prepare Final Report Briefing	Lt Col Smith	April 26, 200X	May 25, 200X

### 2.1 Final Report

(This section should outline JT action items needed to develop the final report and provide necessary briefings. Preparation of the final report must start early and continue in parallel with the completion of all other JT closedown activities. Some of the final report "boiler plate" must be developed as early as possible and even prior to executing the final test event. Sections of the report should be completed as data and information are collected and analyzed and findings, conclusions, and recommendations are reached relative to test issues. A final draft of the report must be completed in sufficient time to allow for coordination with OSD, the Joint Staff, U.S. Joint Forces Command (USJFCOM), and the Services. Specifically, use the following regarding final report submission:

### 2.2 Personnel

(This section addresses all action items necessary to complete personnel (i.e., military, civil service, and contractor) actions for the JT. Of note, upon completion of the final test event, the focus of the project will primarily be related to conducting data analysis and compiling information for the production of the final report. These activities will involve specific personnel resources, which in most cases do not include all personnel assigned to the JT. As such, the JTD should identify personnel who need to remain until JT closedown and develop a time-phased schedule for the release or transfer of personnel no longer needed to complete the project. This schedule should be accomplished at least 12 months before closedown so that all personnel have an approximate date for reassignment, and so that all know what is expected of them after completion of the final test activity. Failure of the JTD to take early action in this area could result in personnel initiating their own actions relative to follow-on assignments and employment, which could result in the unexpected departure of key personnel during the critical JT closedown phase.)

#### 2.2.1 Appraisal Reports

(This section addresses the actions associated with the development of performance reporting. The intensity of activity during the closedown phase and JT focus on completion of the final report often results in personnel appraisal inputs being overlooked or hastily provided at the last minute. The closedown plan should address the schedule for providing inputs into the personnel appraisal systems and will help remind JTDs to give special attention to this important area. This involves the preparation and timely submission of the

appraisal reports or providing inputs to rating officials. For civil service personnel, failure to submit or provide the input on time could have serious consequences to the individual.)

### **2.2.2 Awards and Recognition**

(This section addresses action items dealing with awards and recognition. As the JT nears completion, attention needs to be given to recognize those personnel that have provided extraordinary support to the JT. Since the JT is a joint activity, formal awards to individuals for performance should be joint awards. In many cases, assignment to the JT may represent the only opportunity for an individual to receive a joint award. Submission of personnel for a Service award in lieu of a joint award is another alternative. In no case should an individual be submitted for both a joint and Service award for performance, or achievement associated with the JT. The Service deputy, in accordance with Service procedures, should submit recommendations for Service awards. Awards and recommendations for civil service personnel should be coordinated with and submitted through the host installation CPO. Many awards are downgraded because the submitters did not take sufficient time to incorporate sufficient justification for the award. It is important to start early on an award to ensure that it accurately depicts the exceptional service for the individual that is being recognized.)

JTs may also consider presentations of awards to external organizations and individuals that provided support to the JT, or to individuals who contributed significantly to JT accomplishments. Some of these awards could be Joint Achievement Awards to organizations or individuals for contributions during a particular time or event. OSD Certificates of Achievement are available to give special recognition to supporting organizations or individuals. These two recognitions require formal submissions with justification to the JPO for approval. Some JTs have also used self-developed awards or certificates. These must be funded from contributions by JT members and cannot be funded with OSD or Service funds.)

## **2.3 Disposition of Assets**

(This section addresses all action items related to disposition of facilities and real property associated with the JT. The JTD must plan for and dispose of these assets in accordance with appropriate Service and OSD policies and procedures.)

### **2.3.1 Facilities**

(This section addresses the return of facilities. These actions will be in accordance with specific procedures coordinated between the JTD, the lead Service support agency (if required), the lead Service Operational Test Agency (OTA), and the host base. Things to consider and address include ending the building contract, addressing associated building security matters (e.g., closing down a SCIF), turning off utilities, transferring any applicable classified materials (hard copy or softcopy) to appropriate organizations and/or the Defense Technical Information Center (DTIC), addressing communication security (COMSEC) transfer or turn in, and turning in building keys and/or locks.)

### **2.3.2 Property**

(This section deals with action items necessary to return real property. The JT will typically possess at least two types of property that must be disposed:

- **Service and/or Service OTA Property:** Property provided or purchased by a Service and/or Service OTA remains the property of that organization. Arrangements to return or dispose of this property must be planned. As the JT nears completion, the JTD should contact the respective Service or OTA POC who will provide specific disposition procedures. In some instances, a sister JT may have need for property. In this case, the JTD should coordinate with the Service or OTA POC and other JTDs to transfer the property.
- **OSD Property:** Property provided by, or purchased with, OSD JT&E funds is OSD property. All OSD property assigned to, or purchased by, the JT, either through contractors or U.S. Government agencies will be returned to OSD control when no longer required. An inventory of OSD property must be performed prior to the transfer of OSD property. However, the JT property manager should work closely the JPO property manager to insure timely and correct disposition of all property. In no case should the JTD take action, or make commitments, regarding the disposition of OSD property to another JT or other organization, without prior coordination with the JPO. Special provisions may be made by OSD and the Services for the temporary reassignment of specific items of property to aid in the institutionalization of test methods or test products.
- In either case, all property that is unserviceable should be turned in to the local DRMO whenever possible.)

## **2.4 Close Out of Fiscal Accounts**

(Identify those action items need to close out all fiscal accounts in this section. Of note, the clean up of financial matters will continue well after a JT closes its doors. Late billings and final contract dispositions will create requirements for funds after the JT is disestablished. The JT&E Deputy Program Manager provides assistance to the JT financial manager, specifically in the area of transfer of fiscal responsibilities from the JT to the JPO.)

## **2.5 Contracts and Support Agreements**

(State what action items are necessary for the reconciliation of all contracts and any JT support agreements. Be sure to include actions necessary to transfer or terminate all government credit cards. Things to consider: All contracts and agreements that were established by the JT need to be closed and some may require special actions associated with the closedown. An initial action required in the close out of a contract is a review relative to completion date, level of effort, and scope. The contract should be evaluated in terms of the remaining JT requirements, available government resources, level of effort remaining, and the funding available to complete the work. If it is determined that no additional support is required for the completion of the JT or to support the closedown plan, action should be initiated to close out the contract(s). The JTD should also plan for the termination of all support agreements with host-installations and supporting organizations and agencies. The JTD must consider that many of the assigned contractor personnel are likely to leave earlier than the close down date having a negative effect in completing the final report and required close down activities.)

## **2.6 JT Lessons Learned Report**

(This section describes the action items planned by the JT to collect and develop a Lessons Learned Report. The lessons learned report will address JT lessons learned with regard to: personnel (i.e., military, government civilian, contractor), budget and finances, oversight

(JWAG, GOSC, FFRDC, JPO, Service), security, property control, Service-provided infrastructure support, OSD-provided infrastructure support, test activities (i.e., coordinating with exercise planners, obtaining needed test assets, executing the JT on schedule, mitigating execution risks), transition of test products, and/or other issues identified during program execution.)



## CHAPTER 3 TEST PRODUCT TRANSITION PLAN

### 3.0 Test Product Development and Transition Strategy

(This section introduces the process used by the JT to develop test products and a transition strategy.)

#### 3.1 Test Product Development Process

(Provide a brief description of the process utilized by the JT to identify and develop test products. Test products are developed to support many customers within the Department of Defense [DOD]. Based on test findings and conclusions, both known and unknown shortfalls will be identified and confirmed. Many of these shortfalls will lead to the development of test products designed to alleviate or mitigate the shortfall. Provide brief discussion on how test products were vetted with and tailored to customers. Consider including a process flow chart(s) that depicts the steps utilized to identify and develop test products.)

#### 3.2 Test Products

(This section will list all the test products and their current status. Test products can be identified from numerous sources and support many different customers in DOD [e.g., Combatant Commands, Joint Staff, Services, National Agencies, General Officer Steering Committee (GOSC), etc.]. Test products include, but are not limited to, documents and reports, databases, models and simulations, and specific DOTMLPF recommendations. The criteria normally used to develop a test product include:

- Must have value to the operational warfighter and acquisition communities.
- Must provide a basis to implement and institutionalize the findings, conclusions, and recommendations of the JT
- Must identify specific organizations [i.e., customers] that have the responsibility and means [i.e., resources] to apply the test product.

Test products can be disseminated to the DOD community through numerous means, to include:

- Formal reports and briefings from test events
- Distributed databases
- Formal inputs to joint and Service doctrine publications and tactics manuals
- Training syllabi
- Meeting and conference minutes
- Newsletters and web pages
- Guidebooks and handbooks
- DOTMLPF Change Recommendations (DCR) through a sponsoring command [e.g., USJFCOM, USCENCOM, USSTRATCOM, etc.]

When listing test products in this section, as a minimum, provide the following information for each product:

##### 3.2.1 Test Product #1

- Product Name.
- Purpose [What identified deficiency does the product alleviate or mitigate?].
- Background Information [How the need for the product was discovered, who requested product development, and is this new or an update to an existing product?].
- Product Users [List both known and potential users.].

- Status [What is the current product status, including significant milestones for development].
- Dissemination Means [How will the product be provided to customers?].)

### **3.2.x Test Product #x**

- Product Name.
- Purpose [What identified deficiency does the product alleviate or mitigate?].
- Background Information [How the need for the product was discovered, who requested product development, and is this new or an update to an existing product?].
- Product Users [List both known and potential users.].
- Status [What is the current product status, including significant milestones for development].
- Dissemination Means [How will the product be provided to customers?].)

### **3.3 Test Product Transition Process**

(This section describes the methodology the JT plans to use to transition test products to associated customers. The need to convert and promulgate test findings, conclusions, and recommendations into timely, useful customer products are the most important goal of a transition strategy; historically a major challenge for JTs. Contributing factors include: waiting too late in the JT life cycle to identify and promote test products; not developing an effective test product development process early; and not implementing a clear strategy to transition test products. As a result, valuable test findings, conclusions, and recommendations may only be relegated to the final report with no other action forthcoming. A good transition strategy will help alleviate these issues by making concerned commands, organizations, and agencies cognizant of test products, so potential customers can take action to receive the product and/or initiate DOTMLPF actions necessary to institutionalize the products. One technique JTs should consider is to conduct a study to assess the operational requirement for operational customers to implement recommendations and utilize test products. The study should focus on the following areas:

- What specifically is the operational problem, and whose problem is it?
- How significant is the problem and is it still valid?
- What are the root causes of the problem?
- Will recommendations and/or test products correct the problem?
- Identify who should be responsible for implementing the recommended corrections, and who should receive the test product.
- Identify who should be responsible to monitor the corrective actions to ensure that the problem does not recur.
- Determine a cost estimate to implement the test product in terms of manpower and budget.
- Determine an estimate of savings and improvements in efficiency or joint capabilities.

Based on this assessment, if the JT determines that implementation actions are warranted, the JT should develop a coordinated plan or memorandum of agreement with the specific identified customer [i.e., Combatant Command, the Air Land Sea Application (ALSA) Center, USJFCOM, etc.] and include this test product in the transition plan.)

### 3.4 Test Product Transition Strategy

(This section describes how the JTD will actually implement recommendations and transition specific test products and capabilities to identified customers. It should also provide general information on how the JT intends to manage the transition process within the JT staff. JT recommendations and test products can come in many forms that range from changes in policy directives, doctrine, tactics, techniques, and procedures [TTP], to methodologies for evaluating joint operational systems. No JT recommendation, product, or capability represents an improvement in joint operational capabilities unless implemented and institutionalized by the intended operational customers. JT recommendation, test products, and capabilities that should be considered for transition are varied and numerous. Besides the standard test products listed in Section 3, be sure to consider what other [less tangible or residual] products or capabilities have resulted from the JT and whether they need to be transitioned to operational customers. Examples include:

- Qualitative and quantitative data provided to government program management offices and industry that may be used for cost and operational performance tradeoffs, refining requirements, designing systems, and developing systems.
- Development or refinement of TTP that may reduce the cost of systems acquisition or fill a gap due to lack of a technical solution for a known problem.
- Qualitative and quantitative data on systems [including systems-of-systems] and mission performance and effectiveness that may be used to increase the fidelity of modeling and simulation tools used for a variety of purposes across the DOD enterprise from strategic planning to real-world operations.
- Modeling and simulation capabilities that emerged from the JT that can be used for TTP, CONOPS, or acquisition applications.
- Process or product performance expertise that emerges from the JT that provides a unique capability to support the customer not easily replicated within the customer's organization. This capability may be in the support or use of the product or in the knowledge and expertise alone.

When listing the test products or capabilities to be transitioned by the JT in this section, as a minimum provide the following information for each product:

#### 3.4.1 Test Product #1 Transition to Customer(s) #A, B, C.....

- Product/Capability Name.
- Customer [List both primary and secondary customers.].
- Objective [Describe why the product or capability is being developed for the customer.].
- Coordination [List organizations/offices are being coordinated with and the status of coordination.].
- Resources [What resources are required for product or capability development and transition; who has action to sustain the product after transition; is a POM submission required and, if so, what organization has this action, etc.?].
- Transition Date [What is the planned transition date, and how will the product or capability be disseminated or provided to the customer(s)?].)

#### 3.4.x Test Product #x Transition to Customer(s) #A, B, C.....

- Product/Capability Name.
- Customer [List both primary and secondary customers.].

- Objective [Describe why the product or capability is being developed for the customer.].
- Coordination [List organizations/offices are being coordinated with and the status of coordination.].
- Resources [What resources are required for product or capability development and transition; who has action to sustain the product after transition; is a POM submission required and, if so, what organization has this action, etc.?].
- Transition Date [What is the planned transition date, and how will the product or capability be disseminated or provided to the customer(s)?].)

## **APPENDIX M-5 JT LESSONS LEARNED REPORT OUTLINE**

The below outline provides the minimum necessary information for a JT and QRT lessons learned report. Additional information can be added as required; however, the director is cautioned not to make the document more complex than necessary. The purpose of this report is to provide lessons learned information to the Deputy Director, Air Warfare, JT&E Program Manager, and current and new JT and QRT Test Directors. The intent is this information can be used to refine the JT&E Program and to help succeeding JT and QRT Test Directors avoid the pitfalls the JT or QRT encountered. Additionally, the report should contain problems encountered and the solutions that the test team developed to resolve those problems. The time period for this report for JTs begins after the Joint Feasibility Study and ends with publishing and disseminating of the JT Final Report. For QRTs, the time period begins once the QRT is directed and ends with publishing and disseminating the Final Report. Ensure the document is clear, concise, and makes your intended point in layman's terms. Follow the JT&E Style Guide to prevent rework (e.g., 2 spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to military Services, etc.).

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**JT&E TITLE  
(JXXX)**

**Joint Test and Evaluation**

**Lessons Learned Report  
Month Year**



Submitted By: Joint Test Director Name, Rank, Service  
Director

Signature Line

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## **LESSONS LEARNED REPORT**

### **1.0 Introduction**

(Brief overview that indicates that program under auspices of OSD, DOT&E and that the Services and joint community have agreed that the test is necessary; date of charter; identify lead and supporting Service(s). Include a brief overview of the JT or QRT purpose, problem statement, and principle test issues.)

### **2.0 Program Overview**

(Provide a table of organizations that had an active role in the JT and list support provided by those organizations. Indicate if a memorandum of agreement, memorandum of understanding, or other type of coordination document was used to establish agreements. Include a figure containing the JT schedule. Provide an assessment of whether, or not, the JT or QRT was able to answer the test issues and resolve the problem that justified conducting the test. Include a list of the JT or QRT test products that emerged from the test and indicate what organization accepted responsibility or received the products for implementation.)

### **3.0 Lessons Learned**

(In bullet format, address the following lessons learned topics: Personnel (Military, Government Civilian, Contractor), Budget and Financial, Oversight (JWAG, GOSC, FFRDC, JT&E Program Office, Service), Security, Property Control, Service Provided Infrastructure Support, OSD Provided Infrastructure Support, Test Activities (i.e., ability to coordinate with exercise planners, obtaining needed test assets, executing the JT on schedule, execution risks), transitioning test products, drawdown (i.e., closedown plan adequacy and shortfalls), and other issues (i.e., what other issues arose or caused problems and how were they solved.).

### **4.0 Test Directors Comments**

(Address items not covered above.)

### **5.0 Conclusions and Recommendations**

(In bullet form.)

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## **APPENDIX M-6 FINAL REPORT OUTLINE**

The following outline provides the guidelines for developing the JT final report. While test results were reported in the individual test event reports, the final report consolidates significant test findings, conclusions, and recommendations into one document. The test team should note that it is possible the aggregation of test findings reported in individual test reports may alter or modify conclusions and recommendations published in prior individual test event reports. The final report is more than just a compilation of previous test reports. The test findings that are addressed in the final report must undergo the same level of evaluation as was done in individual test event reports to ensure that no relevant factors were overlooked. An example of this process includes expansion of previously reported test findings beyond a set of test conditions. Often, tests are restricted to training exercises which do not cover a full range of test conditions (e.g., a test conducted at Ft Irwin would consist of a desert terrain environment with little to no foliage). This necessitates the JT team extrapolate the test findings into terrain environments that may be tropical or subtropical. If this cannot be done analytically, the team must consider operational impacts on test conclusions and recommendations listed in the final report.

Emphasis should be on test results, not test methodology. The primary users of the report are the joint and Service decision makers, warfighter operators, and/or testing community (test methodology and process). The final report should provide what was discovered, how the findings resolve the operational problem and test issues; provide definitive and supportable recommendations on how military capability can be improved, and what the implementation of the recommendations will cost (DOTMLPF dollars [if possible], time, interoperability, etc.). To convince joint and Service decision makers to make changes to their operational structures and methods, the final report must provide as much information as possible to help facilitate the delineation of the pros and cons for implementing the recommendations.

Where possible use figures and tables to illustrate your test findings and use short, but complete, concise discussions to explain them. Ensure the document is clear, concise, and written to the knowledge level of those in the decision making and coordination chain and operational users. When in doubt, add more detail to eliminate potential questions. It is suggested the JT use someone unfamiliar with the subject matter to read it and provide feedback in the final editing of the document.

The final test report is a DOT&E document of record, so follow the JT&E Style Guide (e.g., two spaces between sentences, comma before a conjunction in a string of words, capitalize Services when referring to military Services, etc.). Minimize repeating information across chapters and annexes. A draft of the final report will be sent to the JT&E Program Office (Action Officer and Technical Director) and to the supporting FFRDC representatives for review and comment 80 working days after the final test event (approximately 7 months before closedown) for review and coordination with the Joint and Service communities. The final report is due to the Deputy Director for Air Warfare (DD,AW) for approval and signature 125 days after the final test event (approximately 20 working days before closedown). This provides additional time for any last minute changes directed by DD,AW. The title and signature page requires both DD,AW and the Joint Test Director's signature. The JT&E library requires a hardcopy and electronic copy of the report.

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**PROJECT TITLE**  
**(JXXX) Joint Test**



**FINAL REPORT**

**Month Year**

(Picture or Logo, if desired by Test Director)

Submitted By:

Approved By:

Joint Test Director Name, Rank, Service

M. D. Crisp

Joint Test Director

Deputy Director

JT Name

Air Warfare

Signature Line

Signature Line

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## DTIC FORM

Be sure to complete the Defense Technical Information Center (DTIC) form and submit a copy of the final document to the DTIC. The DTIC is a repository for all official Department of Defense documents that include test plans and test reports. Personnel and organizations that have access to the DTIC archives can perform a word search, which is executed against the DTIC form abstracts that are resident in the DTIC database. This provides the means for others performing research to quickly identify and request copies from the DTIC library. The JT&E Librarian can assist in guiding the Joint Test Director to the subject form.

<b>REPORT DOCUMENTATION PAGE</b>			<b>Form Approved</b> <b>OMB No. 0704-0188</b>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>				
<b>1. REPORT DATE (DD-MM-YYYY)</b>		<b>2. REPORT TYPE</b>		<b>3. DATES COVERED (From - To)</b>
<b>4. TITLE AND SUBTITLE</b>		<b>5a. CONTRACT NUMBER</b>		
		<b>5b. GRANT NUMBER</b>		
		<b>5c. PROGRAM ELEMENT NUMBER</b>		
<b>6. AUTHOR(S)</b>		<b>5d. PROJECT NUMBER</b>		
		<b>5e. TASK NUMBER</b>		
		<b>5f. WORK UNIT NUMBER</b>		
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>		
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>		<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>		
		<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>		
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b>				
<b>13. SUPPLEMENTARY NOTES</b>				
<b>14. ABSTRACT</b>				
<b>15. SUBJECT TERMS</b>				
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>		<b>19a. NAME OF RESPONSIBLE PERSON</b>
				<b>19b. TELEPHONE NUMBER (include area code)</b>

**Standard Form 298 (Rev. 8-98)**  
**Prescribed by ANSI Std. Z39.18**

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## **EXECUTIVE SUMMARY**

(6 - 8 pages)

(Your audience for this ES is military pay grade O-6 and above and Government Service GS-15 and above. Keep the information at a level that conveys your JT's purpose, how the test improved current joint warfighting capabilities, and only enough information about the test execution procedures to lay the groundwork for the body and annexes of the Final Report. The executive summary may be the most important section for "selling" the recommendations and ensuring that your test products are accepted and implemented. Keep in mind that TTP are reviewed by members of the four Services in addition to the test community.)

### **ES.0 Introduction**

(Brief overview that indicates the JT is under the auspices of OSD, DOT&E and that the Services and joint community considered the project necessary, identify the lead and supporting Services and commands, and provide a brief description of the operational capability impacted by the problem addressed by this final report.)

### **ES.1 Problem Statement and Test Issues**

#### **ES.1.1 JT Problem Statement**

(Address the problem statement in an operational context. Summarize a description of the problem. Use a figure if necessary to convey this information. Minimize the discussion to only the facts.)

#### **ES.1.2 Test Issues**

(Extract the issues from the PTP and add any significant sub-issues of interest to senior officers and civilians who will implement your recommendations. Highlight those issues and sub-issues the test addressed.)

### **ES.2 Test Concept Overview**

(If a baseline test was done, list what it provided and contrast the findings with the enhancement tests. List in table format the organizations that participated in the test [overall, not by test event]. List test articles [TTP, C2 systems integration, ISR architecture, processes, and methods developed by the JT in execution of the test event] that were tested and provide comments on how these articles impacted warfighting capability before the JT was chartered and contrast it with post-test capabilities [enhanced joint warfighting capability]. Limit the information to that required to put the significant findings, conclusions, and recommendations in context.)

### **ES.3 Significant Findings, Conclusions, and Recommendations**

(Answer the principal test issues addressed in ES 2.2 above. Use bullet form by stating test findings, conclusions, and recommendations. *If you do not have a recommendation for a flag officer to implement, the finding should not be in the ES.* Keep in mind that a finding is a single sentence statement of fact based on rigorous test methodology and data analysis. If you anticipate a problem with test product transition, include appropriate comments here.)

#### **ES.4 Test Products**

(Table format if appropriate: name of test product items, description, which organization or entity has or will accept test products, and any comments [if you are having a problem in transitioning test products, this may be the last chance to highlight it]. Recommendations in ES.3 concerning test products can be included and amplified here.)

#### **ES.5 Summary**

(Address only key things that you want senior officials to take away. Be aware that the reviewers may read this summary first or may read nothing but this summary.)

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## **CHAPTER 1 INTRODUCTION**

(4 - 5 pages)

### **1.0 Overview**

(Brief overview that indicates the JT was conducted under auspices of OSD, DOT&E and that the Services and Joint community have agreed that the test is necessary. Identify the lead Service(s) and primary sponsoring and participating organizations.)

### **1.1 Joint Test Background**

(Provide a brief version of the information presented in the PTP, Section 1.1: a brief description of the operational capability impacted by the problem addressed by the JT, a short discussion of the problem statement, and an overview of the principal issues answered by the JT.)

### **1.2 Authorizing Charter**

(Provide the charter date, issuing authority, and a brief summary of the JT purpose as stated in the charter.)

### **1.3 Description of Test Articles**

(Briefly describe the test articles that were tested and evaluated [changes to TTP and system of systems architectures, CONOPS, a new or different process model, test methodologies, etc.]. List the new TTP, modified architectures, and process models that were tested. Use figures and tables where necessary.)

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## CHAPTER 2 TEST CONCEPT

(10 - 15 pages)

### 2.0 Introduction

(Provide short introduction paragraph that explains the development of the test concept and methodology in relation to resolving the test issues. Only put enough information into this chapter to provide the reader an understanding of the test events that were executed to include limitations and constraints that must be considered when using the test findings, conclusions, and recommendations.)

### 2.1 Problem Statement and Test Issues

(Directly out of the PTP. Highlight those issues and sub-issues that will be answered in this Final Test Report.)

### 2.2. Test Objectives

(Specific statement of intent [e.g., assess the impact of GPS EW on precision weapons and related communications systems]. Emphasize those test objectives that directly impacted the problem.)

### 2.3 Test Venues and Scenarios

(Briefly describe the venue(s) for each of the test events executed in the JT. Provide a general scenario overview and a description of how each test scenario contributed to the overall scenario.)

### 2.4 Test Constraints and Limitations

(In bullet form, list all test constraints, limitations, and the mitigation measures used to offset each constraint and limitation. If there was no mitigation to a constraint or limitation, state the impact to the test event and the impact on the test findings and conclusions.)

### 2.5. Supporting Organizations

(Simply list in a table all the organizations that supported test planning, execution, reporting, and test product transition.)

### 2.6 Test Schedule

(Illustrate with a Gantt chart type figure. Indicate all major test event planning, execution, and post-test milestones. Include GOSC and JWAG meetings and Quick Look Report and Test Event Report release dates.)

### 2.7 System Descriptions

(This includes TTP, architectures, operational process models, or whatever was the primary focus of testing. Purpose of this paragraph is to put the findings, conclusions, and recommendations in a meaningful context so the reader can understand the importance of a test finding, why specific conclusions were reached, and the importance of implementing recommendations. Figures and photos are good, but should be kept as small as possible without losing content. All figures and photos must be relevant to the findings. If applicable, add

mission profiles or other similar type information that adds to better understanding of test findings and conclusions.)



## **CHAPTER 3 TEST FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**

(As many pages as required, however, discussions should be short and to the point. Findings must be one-sentence statements of fact. Conclusions can be three to five sentences. Recommendations should be succinct and clearly assign an action to an organization.)

### **3.0 Introduction**

(Discussion can include data quality, how it represents operational environment, operational realism, etc. Chapter Two and this lead-in are intended to put the reader at ease and prepared to accept the test findings, based on test rigor, and to implement the related recommendations. This introduction and Chapter Two should be written so that none of the findings come as a surprise.)

### **3.1 Summary of Significant Findings**

(Bullet format. Highlight and lead off with items that are significantly important to improving operational readiness or capability. As a general rule, there should be no more than four or five significant findings. These should also be listed in the Executive Summary. NOTE: Findings are statements of fact, not conjecture. Findings should be based on what actually occurred during your test events regarding your test issues.)

### **3.2 Findings Overview**

(Introduce the findings with an overview of their nature [e.g., system accuracy problems] and the operational elements impacted [e.g., navigation]. Apply a title consistent with the finding that is being reported [can use title in lieu of “Issue” terminology used in 3.3.1 below]. Explicitly address test issues and sub-issues (at least two layers down) or relate the discussion to the issues and sub-issues. This is the report that provides the “answers” to the test issues. If not organized by Issue, the discussion must establish a clear and distinct linkage to the Issues and answer all Test Issues. Compile a master list and check off each one until all are addressed. If there are “incidental” findings – those that emerge but are not clearly aligned with test issues and sub-issues – they should be listed after all test issues and sub-issues are addressed. [Note: Exception should be made if the incidental finding is of major importance.] The following format should be used for each finding: Discussion, Finding, Conclusion [more than one finding can support a single conclusion], and Recommendation [normally associated with a conclusion statement].)

#### **3.2.1 Issue 1 Discussion**

(Answer the Test Issue. Address factors that place this answer into context. Consider the applicable sub-issues (and/or measures) that led to this answer. Address the impact this answer has on joint warfighting capability, systems, organization, doctrine, TTP, and/or training.)

##### **3.2.1.1 Sub-Issue 1.1 Discussion**

(Answer the Sub-Issue. Address factors that place this answer into context. Consider the applicable sub-sub-issues (and/or measures) that led to this answer. Address the impact this answer has on joint warfighting capability, systems, organization, doctrine, TTP, and/or training.)

**3.2.1.1.1 Finding(s)**

(Each finding should contain summarized statistics or graphical analysis figures [e.g., box plots, trend analysis plots, bar graphs, summary tables, etc.] based on the measures for this sub-issue. Care must be taken to ensure that each is self-explanatory in terms of legends and markings, titles, etc. – never assume the reader will understand. Multiple findings can support the same conclusion and a single recommendation as long as they are closely related or at least deal with the same or similar issue [e.g., navigation accuracy is degraded during operations near high voltage lines]. Findings should always be “past” tense since they are what actually occurred.)

**3.2.1.1.2 Conclusion(s)**

(There can be more than one conclusion per finding but each conclusion must be clearly linked to the stated findings. Conclusions should be stated in “present” tense as they are theories derived from the findings.)

**3.2.1.1.3 Recommendation(s)**

(There can be more than one recommendation per conclusion but must be clearly linked to the stated conclusions. Conclusions justify each recommendation. Recommendations should be stated in “future” tense since they indicate actions to be taken to address the conclusions. Identify the specific organizations to act on each recommendation whenever possible.)

**3.2.1.2 Sub-Issue 1.2 Discussion****3.2.2 Issue 2 Discussion****3.3 Summary**

(Briefly summarize the overall impact of the recommendations on joint warfighting and/or test capability. Use one paragraph if the impacts are similar or separate paragraphs if they are dissimilar. Also summarize the benefits to the joint warfighter if the recommendations are implemented.)

## **CHAPTER 4 TEST PRODUCTS**

(2-5 pages)

### **4.0 Introduction**

(Briefly introduce the test products. Test products should be clearly linked or derived from the recommendations stated in chapter 3. Use a table format that lists each test product and designates the organization adopting the product.)

### **4.1 Test Product Descriptions**

(If necessary, describe each test product in detail.)

### **4.2 Test Product Transition**

(Discuss JT coordination to transition each test product, any financial factors such as fielding and maintenance costs, and coordination with activities such as the Services, ALSA, the Joint Staff, or a COCOM. Reference any signed memorandums of agreement (if applicable) between the JT and accepting organizations. The JTD must coordinate all such MOAs with the JT&E Program Manager. Caution must be exercised to avoid financially or legally obligating OSD (DOT&E) in any agreement that is in force after the JT scheduled shutdown date.)

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## **ANNEX A ACRONYMS AND ABBREVIATIONS**

(List only acronyms that are within the DTP including its Annexes.)

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## **ANNEX B DEFINITION OF TERMS**

(Provide the definition of terms that are unique to the test subject area or have multiple definitions. The definitions should be consistent with those used in the Joint Publications. If not in a Joint Publication, provide the source reference. Purpose of this Annex is to ensure that all readers and users of this report have the same understanding of terminology and to prevent unnecessary confusion.)

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## **ANNEX C ANALYSIS**

(As required. This annex should contain supporting analytical material that is too detailed for the main body of the report. Caution needs to be exercised to avoid the tendency to place too much detail in this annex that would cause the users and coordinating personnel to not read it. The individual test event reports should stand-alone and do not need to be inserted into the Final Report. This annex should contain the details from the final test event however, since that test event did not have a separate test event report.)

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## **ANNEX D MEMORANDUMS OF AGREEMENT**

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## **ANNEX E REFERENCES**

**(As required)**

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## **ANNEX F DISTRIBUTION LIST**

(Insert the latest distribution list from the JT&E Program Office. Delete any individuals not associated directly with your project and add any specific individuals who are participating in the test or organizations supporting the test.)

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