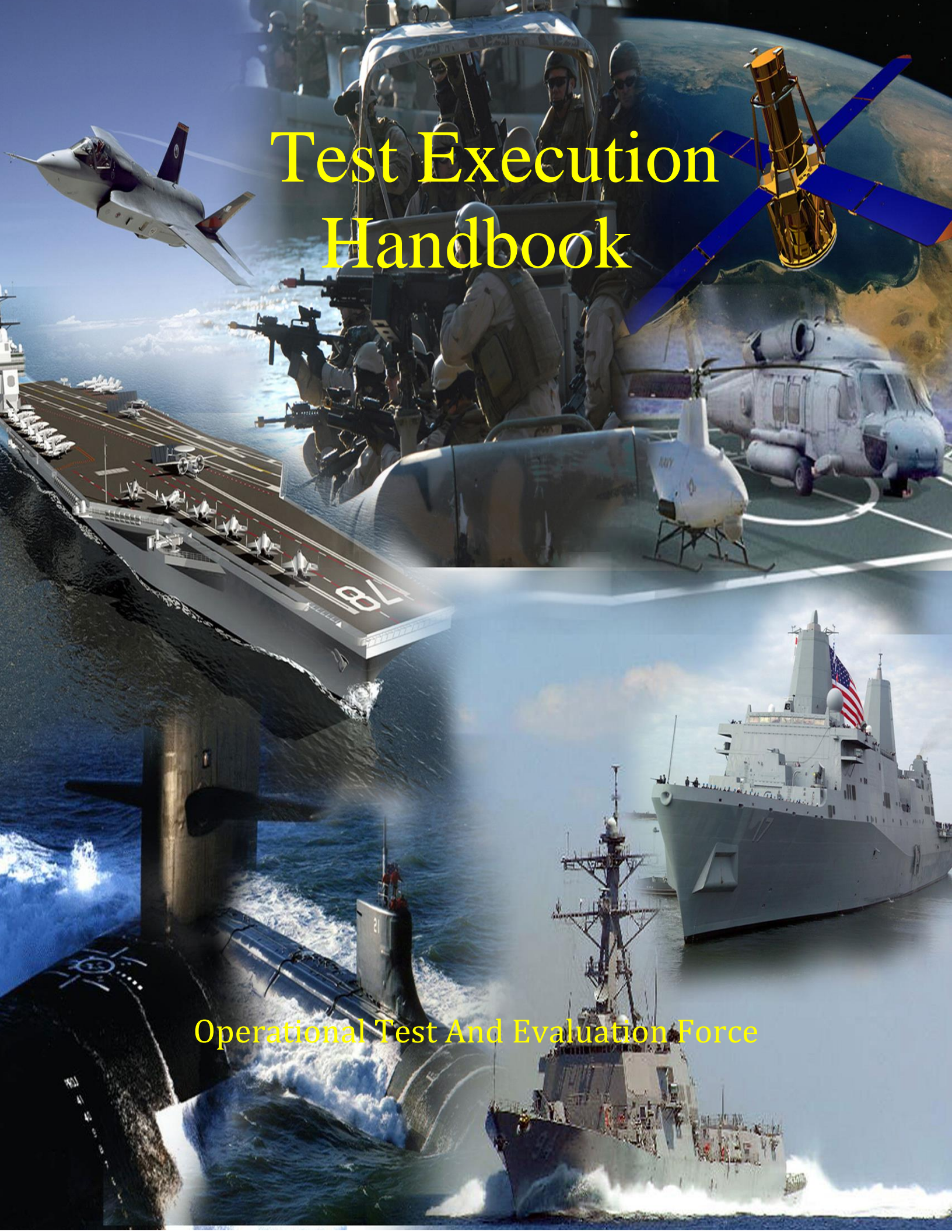


Test Execution Handbook



Operational Test And Evaluation Force



Version 2

13 September 23

RECORD OF REVISIONS

Number of Change	Summary of Changes	Updated
1	This is the initial Test Execution Handbook	11 MAY 20
2	The following updates were made as part of Version 2: <ul style="list-style-type: none">- Changed “Commander” to “Director”- Changed “ACOS” to “Warfare Division Director”- Added data management guidance- Added SECNAV 5000.2G guidance- Updated Test Commencement Message guidance- Updated Test Deviation guidance- Added Conducting Tabletop Tests – Appendix C	13 SEP 23

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Introduction

Executing well-planned, technically sound, and well-coordinated Operational Testing (OT) is the core of our business. This handbook was prepared to help the Operational Test Director (OTD) execute that testing. It is a “how-to manual” for pre-test preparations, test daily routine, deviations from the plan, communication, and actions required to enter the Post Test Iterative Process (PTIP).

The OTD is the Operational Test and Evaluation Force (OPTEVFOR) representative during testing. The OTD will safely and professionally prepare for and execute the test as planned; communicate any required deviations from the plan to their Warfare Division Director/test squadron Commanding Officer (CO); proactively lead the assigned test team; and ensure all required data are collected, stored, and transported for analysis. The OTD’s roles during testing are demanding, including: test system subject matter expert, team logistician, data security manager, travel agent, financial manager, maintenance manager, “Red Force” tactician, and safety officer. The OTD is not alone in accomplishing all these tasks. There is a team at the test squadrons and at OPTEVFOR Headquarters ready to provide support. Continual communication within the team and back to the squadron/warfare division will enable that support to ensure test success.

This handbook implements OPTEVFOR policy for preparing for and executing OT. The OTD is expected to develop a test execution strategy based on the principles in this handbook, tailored to the needs of their program.

Nothing in this handbook absolves an OTD from critically thinking about tailoring test execution to the needs of a specific test program! No policy or handbook can cover all test programs’ variabilities. If the OTD has a ‘better answer’ which will achieve test objectives while improving testing, they are expected to bring it forward prior to executing the test!

Appendix B to this handbook, the Test Execution Checklist, was created over several years through OTDs’ experiences while planning and conducting OT. It is a guide for the OTD to avoid the various “gotcha’s” which can occur. Appendix C, Conducting Tabletop Tests, was developed to aid test teams in conducting testing in a tabletop presentation environment. Additions and corrections to these checklists are welcomed as current and future OTDs learn from tests they have executed. The OTD should review Appendix B or C (as applicable) during the test planning process and several months prior to starting test, and should use the checklist to ensure the test team is ready.

The OPTEVFOR staff has a wealth of expertise and the entire staff is prepared to support the OTD and the OT team. Operational testers should engage their divisional chain of command and competency division staff for assistance navigating any challenges.

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Test Execution Handbook

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CHAPTER 1 - PRE-TEST ACTIONS

1.1 COMMUNICATION WITH THE TEST UNIT

Developing a good working relationship with the CO of the unit having the System Under Test (SUT) and their Immediate Superior in Command (ISIC) is critical to OT success. In many cases, these individuals do not have OT experience and will need to be guided through our testing process starting with the question: “Who is OPTEVFOR?” The OTD, keeping the warfare division/test squadron chain of command informed, should meet with the key personnel from the unit early in the test planning process to firm up the foundation for upcoming testing. In some cases, such as with surface ship live firing events, the OTD should be prepared to consult with ISIC staff members. When conducting an IT event, the OTD should collaborate with the Program Office to conduct this meeting. The CO is normally interested in schedule, safety, personnel support, material support, and how the performance of the crew will be conveyed in the OT report. The OTD should address these concerns, discuss the role of Adjunct Testers with the CO, and request support with any required Adjunct Tester nominations from the test unit. The ISIC is normally focused on the impact of OT on the unit’s availability for other tasking as well as the safety aspects of testing, which are particularly important when discussing live weapons firing events. The OTD should establish a good working relationship with the assigned unit and staff points of contact (e.g. a ship’s Combat Systems Officer, a squadron’s Operations Officer, a staff’s N3) and keep them informed as test planning progresses. These relationships are enhanced by letters from OPTEVFOR to the unit CO and the ISIC.

1.1.1 CO AND ISIC LETTERS

OPTEVFOR will send a personal letter from the Director to the CO and the ISIC of each unit scheduled to provide key services during OT. The OTD is responsible for drafting the letters and submitting them, via their division chain of command, to the Front Office for timely signature. See letter format templates located in the OPTEVFOR knowledge management repository. The letter should be received by the unit CO and ISIC prior to the promulgation of the test plan. At a minimum, the OTD should obtain a signature no later than 30 days prior to commencement of OT. For late changes in OT units, consider the use of a “Personal For” message in lieu of a letter. Make sure the CO's name is correct (pay attention to a potential change of command prior to OT) and tailor the letter according to the unit’s participation in the testing. Letters to COs of several units in the same Strike Group (i.e., all participating in the same test) should each be personalized for each particular unit. Check with the Front Office to see if other divisions have sent the same letter to the same ship for a previous OT. Additionally, the Warfare Division Director will receive feedback copies from Flag Admin to retain for future reference. These are particularly helpful for Flag-to-Flag letters.

- To a CO who has not previously provided key services for OT (and, therefore, is receiving his first personal letter from OPTEVFOR) use the “CO Letter 1st time” template to compose a letter based on the phase of testing. Tailor the letter to suit the testing, and, if sending a letter to more than one CO, vary the wording between them to eliminate the appearance of form letters.

- To a CO who has previously provided key services for OT (and, therefore, has already received a long personal letter from OPTEVFOR) use the “CO Letter, 2nd time” template to compose the letter. Pay particular attention to the personalization of this letter, and ensure it accurately acknowledges the CO's earlier support.
- To the ISIC, use the “ISIC Letter” template to compose this letter.

1.2 FORMING THE TEST TEAM

The OT team may consist of personnel from other OPTEVFOR divisions (such as Code 01D for Cyber Survivability test events), from other commands such as Warfighting Development Centers (WDC), from Warfare Center field activities, and from test ranges and supporting activities. The OTD must ensure each member of the team understands their role in the test, the expectations for their performance on test, and the logistics to get them and their supporting equipment to and from the test site. If possible, the OTD should meet with the entire team prior to traveling to the test site. If not possible, a virtual meeting should be scheduled. Each member of the test team should have a copy of the test plan and should read it carefully before the test starts. Very early, the OTD should ensure any required funding (especially for Warfare Center divisions to support planning and data analysis) has been provided and accepted.

NOTE

The OTD should use caution when distributing the test plan, ensuring it stays within the test team and is not pre-disclosed to SUT operators/maintainers/watchstanders. Pre-disclosing an OT plan may invalidate OT results!

At a minimum, there should be a pre-test brief with all test personnel and Adjunct Testers to ensure everyone at each test location:

- Possesses appropriate sections of the test plan, has read it, and understands his or her responsibilities with respect to data collection and control.
- Understands Go/No-Go criteria and safety responsibilities.
- Understands the daily testing battle rhythm and the expectations for communication with the OTD. Communication methods and frequency should be addressed. In addition to the normal communication associated with end of day recaps/hot washes, specific direction should be given to test team members to immediately communicate any unsafe conditions and any issues preventing the proper collection of data supporting critical measures.
- Is encouraged to identify potential deficiencies as they become known.
- Understands the test schedule; test resources; team logistics such as messing, berthing, medical, and security requirements; and the availability of supporting ranges and test articles such as targets, red force aircraft, and locator transponders.

The OTD, Operational Test Coordinator (OTC)/Section Head (SH), Lead Test Engineer (LTE), data analysts, and supporting contractors should review the test plan in detail to ensure the test team has a thorough understanding of all critical tasks, measures, and specific data collection requirements to support Critical Operational Issue (COI) resolution/risk assessment.

- What are the critical data elements needed to answer the COI questions?

- Which test events support the collection of these data elements?
- Who is responsible, by name and location, for observing and documenting critical data and timestamping it?
- How are the critical data to be collected and recorded?

1.3 WRITTEN GUIDANCE TO TEST UNITS

1.3.1 LETTERS OF INSTRUCTION (LOI)

For large, complex tests such as data link testing with several ships and aircraft, it may be useful to prepare a Letter of Instruction (LOI) as is done for major Fleet exercises. An LOI ensures all participating units have a clear understanding of their respective roles and responsibilities in test execution. LOI promulgation is the responsibility of the Officer Conducting the Exercise (OCE), and the OTD will draft it. OTDs will coordinate with the program's staff as necessary to draft LOIs for Integrated Testing (IT). The LOI message is usually drafted using Navy pre-exercise message format. The LOI will be written, assigned a serial number, and released by the Warfare Division Director or test squadron Commanding Officer. For submarine operations, OPTEVFOR will develop the LOI in coordination with the Type Commander (TYCOM)/Squadron for release by the Submarine Operating Authority (SUBOPAUTH).

1.3.2 OPERATIONAL TASK (OPTASK) MESSAGES

OPTASK messages are useful tools to fill in the intelligence, organization, and background information required to put the test units "in the scenario" prior to test start. For example, a complex Air Warfare test will require an air defense task organization, unit callsigns, an intelligence "scene setter" including a description of the threats, data link network description, external communications frequencies, and geographic boundaries. OPTASK messages are normally promulgated by the designated Warfare Commander or the senior CO among the test units. The OTD should work closely with an Adjunct Tester reporting to that leader in order to ensure this message meets the requirements of the test plan.

1.4 PRE-TEST CONCERNS

During the test planning process, additional considerations that the OTD should verify, as appropriate, include:

- Contract support in place for test execution and PTIP.
- MOA/Us are in place with any external agencies required to support data extraction, reduction, processing, and analysis for the test phase.
- Appropriately trained personnel will be available to operate and maintain the equipment.
 - OTD work with the test unit's Training Officer to review training/qualifications.
- Required certifications and authorizations (e.g. Weapon System Explosive Safety Review Board (WSESRB), Authority to Operate (ATO)/Authority to Test (ATT), Flight Deck Certification) have been or will be obtained by the start of testing.
- The SUT will be installed and tested for operability.
- The SUT hardware and software configuration is as described in the OT plan.

- Operator and maintenance manuals, the Life Cycle Sustainment Plan (LCSP), Navy Training Systems Plan (NTSP), and other necessary documentation will be available for review.
- Instrumentation (including range instrumentation) will be available.
- Targets, simulators, Electronic Warfare (EW) services, etc., will be available and funded.
- Participants have received and understand (as required): the test plan, the LOI, and the OPTASK(s).
- The SUBOPAUTH - Commander, Submarine Force Atlantic (COMSUBLANT) or Commander, Submarine Force Pacific (COMSUBPAC) - has concurred with the safety aspects of test plans involving submarines.
- The required test range or Operating Area (OPAREA) waterspace and airspace have been scheduled.
- Support services, such as automated data collection systems, will be available.
- Contingency plans have been discussed for weather, target, and service non-availability.
- Arrangements have been made for pretest briefings, including arrangements for additional external briefers, if necessary.
- Any “countdown procedures” and checklists for live weapon firings have been developed to support the test plan. These include kneeboard cards for aircrew supporting the event.
- Proper safeguards are provided for all classified materials to be used during test operations. This includes obtaining proper authorization for removal from the command, transportation, and stowage of classified materials. The hand-carrying of classified material to or from the test site by the OTD or members of the OPTEVFOR test team requires coordination with the OPTEVFOR Security Manager.
- Rehearsals of test operations are scheduled, if appropriate. Rehearsals are useful if they increase the likelihood of obtaining meaningful data, and are problematic if they destroy operational realism. Live-fire events will typically require one or more rehearsal events. In these cases, it is appropriate to take action to eliminate/minimize any early disclosure during the actual test event.
- If developed by the program office as part of suitability testing, use Maintenance Demonstration “pre-faulted modules” to conduct the event. These items have very long lead times for manufacture so planning far ahead may be necessary.
- Arrangements have been made to obtain/or be able to access man-readable extracted data files.
- Arrangements have been made with OPTEVFOR 20 Division (Information Resources) to transfer/upload data files from media onto OPTEVFOR networks.
- Procedures for handling emergent changes to an approved test plan are understood.
- The assigned 01B analyst or other approved analyst understands the requirements for, and has the means to complete, any Exploratory Data Analysis needed to support the test.

Immediately prior to the start of test, ensure:

- The SUT is in the proper configuration (both hardware and software) with any deltas from the OT plan documented, and in working order.

- Equipment necessary for the test (spares, support equipment, and instrumentation, to include range instrumentation) is in working order.
- An end-to-end dry run of the data collection and analysis process is conducted.
- Time synchronization and communications have been established, as necessary.
- Event Cards, surveys, and data sheets are ready to be distributed, as necessary.
- Equipment calibrations have been accomplished, as necessary.
- Contingency plans have been discussed with appropriate personnel.
- Blue/Gold Sheet templates and the OTD daily Situation Report format are in hand.

1.5 PRE-TEST BRIEFINGS

The Warfare Division Director or Squadron CO may require the OTD to present a pre-departure brief in order to confirm readiness to execute. The OTD should discuss asset availability, personnel readiness, funding, schedule, critical tasks/measures data collection, logistics, travel timelines, and update the post-test Plan of Action and Milestones (POAM). The OTD will invite the Warfare Division Director/Squadron CO, Deputy Division Director/Squadron Chief Operational Test Director (COTD) and Assistant COTD, SH/OTC, 01C Action Officer, and LTE (if assigned). When conducting Cyber Survivability testing, 01D Test Team leadership will also be invited.

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CHAPTER 2 - COMMAND RELATIONSHIPS

2.1 FLEET COMMANDS

Through the Fleet scheduling process, Commander, U.S. Fleet Forces Command (CFFC) and Commander, U.S. Pacific Fleet (COMPACFLT) provide units to support OPTEVFOR in the execution of OT. To be clear, the operation of Fleet units assigned by the Fleet quarterly employment schedule to support a Chief of Naval Operations (CNO) project (either during OT or Developmental Testing (DT)) remains the responsibility of the operational chain of command. Specific guidance for units supporting OT is found in OPTEVFORINST 5440.47(series), which the OTD will understand and provide to those units.

2.2 AUTHORITIES AND RESPONSIBILITIES

Just as the operational chain of command retains full authority and responsibility for unit operations, OPTEVFOR retains full authority and responsibility for the execution of the OT per the approved test plan. In practice, this means that while the operational unit commander may decide a given test cannot be conducted due to safety or operational considerations, the unit commander is not at liberty to modify the test design. The decision to modify an approved OT plan is the prerogative of OPTEVFOR.

2.3 OFFICER IN TACTICAL COMMAND

Test unit operations will be directed by the Officer in Tactical Command, or the senior CO of the assigned ship(s) or air squadron(s), who will coordinate with the OTD throughout the test period as required.

2.4 SAFETY

Military unit safety, and the operation of supporting civilian aircraft and vessels, ultimately remains the responsibility of the unit CO, aircraft Pilot in Command (PIC), or vessel Master. The OTD will not attempt to direct an unsafe operation, nor is the unit, ship, or aircraft under any obligation to participate in an inherently unsafe test event. OT will not put personnel in a situation outside the expectations of safety during normal military operations and training. All test participants, including test unit personnel, are required to report unsafe situations to their CO and/or to the OTD as soon as possible. If an unsafe situation occurs, the OTD will immediately stop the test event and the CO, PIC, or Master will place the unit in a safe condition. The CO and the OTD will confer in order to determine a safe way forward and the OTD will communicate the safety concern to the OPTEVFOR chain of command. Once the unsafe condition has been resolved to the satisfaction of the CO, PIC, or Master and the OTD, the test event may recommence.

2.5 OT OBSERVATION BY OTHER AGENCIES

OPTEVFOR welcomes program management and their contractors, or other interested parties as approved by the Director, as OT observers (in reasonable numbers as space permits). When observers from outside OPTEVFOR are present during OT, the OTD will ensure:

- Observers understand they are not in control of the test, cannot influence the test in any way, and should communicate any concerns directly to the OTD and not interfere with the test unit or members of the OT team.
- Observers are briefed on their specific responsibilities regarding the confidentiality and control of data obtained during OT.
- Observers are briefed on their responsibility not to reveal any test data or results to anyone without the OTD's expressed permission.
- The observer's parent command or activity will be informed by the Warfare Division Director or test squadron CO to not issue a separate report or release any test data prior to publication of the OPTEVFOR Report.
- Observers are afforded the opportunity to provide input to support OPTEVFOR analysis.

2.6 DIRECTOR, OPERATIONAL TEST AND EVALUATION (DOT&E) OT OBSERVATION

Members of the DOT&E staff, and their support contractors, will routinely observe OT for programs for which DOT&E exercises oversight. The following procedures have been agreed to for DOT&E OT observation:

- Each observer will be briefed by the OPTEVFOR representative as to the observer's specific responsibilities regarding the confidentiality of data obtained during OT.
- The OTD will keep DOT&E observers informed of all aspects of test execution, include them in daily pre-test and post-test activities, and provide them locations to safely observe test events.
- DOT&E observers will not, in any way, attempt to alter or direct the conduct of test operations. Conduct of the test will remain entirely under the control of the OPTEVFOR OTD.

To protect the integrity and security of Navy OT, DOT&E observers will not reveal any test data or results to anyone other than their DOT&E supervisors.

2.7 ADJUNCT TESTERS

Observers and personnel from outside OPTEVFOR required to assist in the conduct of OT will be designated OPTEVFOR Adjunct Testers. Adjunct Testers may be data collectors, environmental experts, real-time data analysts, or test unit personnel whose inside knowledge is critical to smoothly executing OT. Adjunct Testers should be chosen out of necessity, for their expertise, and the number of Adjunct Testers should be kept to an absolute minimum. Adjunct Testers will be specifically briefed to coordinate all their communication through the OTD and must be briefed about the consequences of pre-disclosing OT plans and jeopardizing the conduct of the test. During OT, Adjunct Testers work for the OTD who must maintain control of the test at all times. If the OTD believes an Adjunct Tester is not abiding by the agreement of the signed designation letter, or is exerting influence on the conduct of the test, the OTD should inform the Adjunct Tester of the issue and attempt to correct the behavior. If unsuccessful, the OTD shall remove them from the team and notify their parent command and the Warfare Division Director. Adjunct Testers will be required to complete and sign the OPTEVFOR Adjunct Tester form located in the in the OPTEVFOR knowledge management repository.

CHAPTER 3 - TEST READINESS REVIEWS (TRR)

3.1 TRR RESPONSIBILITIES

Prior to conducting either IT or OT, the Program Manager (PM) will convene a TRR to ascertain the system's readiness for testing. SECNAVINST 5000.2G provides guidance to certify a program's readiness for OT. The OTD must read Enclosure 10 to that instruction at least three months prior to the scheduled TRR. There are responsibilities for both the PM and OPTEVFOR detailed therein. This Handbook describes preparations for an IOT&E OTRR, which is the most comprehensive review. TRR variations based on test phase and type are addressed in the SECNAV instruction.

During this review, the Program Manager will present Objective Quality Evidence (OQE) across the criteria defined in SECNAVINST 5000.2G in order to convince a panel of stakeholders the system is ready for testing. While OPTEVFOR, and the OTD specifically, has a role in the OTRR and must prepare for it, it is important to understand the responsibility for this meeting falls squarely on the shoulders of the Program Manager. A program's T&E Manager might, due to inexperience with the process, overly depend on the OTD to create the OTRR slide package, to provide informal feedback on the program's readiness for testing, and/or to put the burden of coordinating this meeting on the OTD. To the OTD, providing this assistance might appear to be a good idea. Do not do it!

OPTEVFOR will never tell the PEO or PM when to go to test. If the OTD is overly-involved in the OTRR preparation process, it can give the impression OPTEVFOR believes the SUT is ready. Although SECNAVINST 5000.2G requires the presence of the Operational Test Agency (OTA) at the OTRR, the OPTEVFOR designated representative, normally the Warfare Division Director or designated representative, will not sit as a member of the OTRR decision panel. This policy avoids the appearance OPTEVFOR is pre-determining IT/OT readiness or results. Sitting as a member of an advisory panel, not involved in the decision making, is permitted.

There are sixteen total OT Certification Criteria prescribed in SECNAVINST 5000.2G, divided into PM (12 criteria) and OTA (4 criteria) groups. Although the PM is responsible for addressing the first 12 criteria, the OTD is expected to know the status of, and be able to brief the OPTEVFOR chain of command on all of them prior to the meeting. See figure 1 below.



Program xxx OT-xx Cert Criteria



PM OTA Program Office Technical/Programmatic	PM OTA OTA Process
<input type="radio"/> <input checked="" type="radio"/> 1. TEMP current / Entrance Criteria met	<input checked="" type="radio"/> <input type="radio"/> 13. OTA Test Team Staffing
<input type="radio"/> <input checked="" type="radio"/> 2. System performance/deficiencies	<input type="radio"/> <input type="radio"/> 14. Ranges and Resources
<input type="radio"/> <input checked="" type="radio"/> 3. Cybersecurity	<input type="radio"/> <input type="radio"/> 15. M&S Accreditation
<input type="radio"/> <input checked="" type="radio"/> 4. Production Representative	<input checked="" type="radio"/> <input type="radio"/> 16. OTA COI Assessment
<input type="radio"/> <input checked="" type="radio"/> 5. System Documentation /Artifacts	
<input type="radio"/> <input checked="" type="radio"/> 6. Logistics	
<input type="radio"/> <input checked="" type="radio"/> 7. Test Unit Staffing	
<input type="radio"/> <input checked="" type="radio"/> 8. Interoperability	
<input type="radio"/> <input checked="" type="radio"/> 9. System Safety	
<input type="radio"/> <input checked="" type="radio"/> 10. Certifications	
<input type="radio"/> <input checked="" type="radio"/> 11. LDTO/PM COI Assessment	
<input type="radio"/> <input checked="" type="radio"/> 12. OTRR Cert msg prepared for approval	

Key

● No PEO/CG discussion required

● PEO/CG discussion required/
Risk accepted/ Cert msg details
T&E Exceptions

● Comment not required

1

NAVY T&E

Figure 1. TRR Certification Criteria

Normally, the OTD will present the four OTA Process criteria to the panel, having discussed their status with division/squadron leadership prior to the meeting. They are:

- a. **OTA Test Team Staffing.** The OTD will discuss the composition of the test team, the assignment of any Adjunct Testers, and the designation of personnel and funding status for any outside agency support to include data extraction and data analysis.
- b. **Ranges and Resources.** The OTD will discuss SUT availability; the assignment, availability, and funding status for any additional test assets (e.g. opposing force aircraft); target availability and configuration, if required; and the scheduled availability, funding status, and coordination of test requirements with any required test facilities/test ranges.
- c. **Modeling and Simulation (M&S) Accreditation.** The OTD should brief the status of the OT Accreditation Plan, whether or not the program is on track to provide the required Validation data, and the plan to apply any live test results (noting any limitations) to accredit the M&S. For live testing, if targets require a Test Target Validation Report (TTVR) from the program office, the status of that TTVR should be discussed.
- d. **OTA COI Assessment.** This criterion normally gets the most interest, and requires the most preparation. Program Managers view this criterion as a “report card” on their SUT. Normally, they have an optimistic view of their system’s capabilities. This criterion is an independent assessment by the OTA (the PM gets criterion #11 for their assessment) of the likelihood that each COI will be resolved satisfactorily. To create this assessment, the OTD should gather all relevant test data and carefully examine the test conditions under which those data were collected. How much testing has been done? How do the results relate to

the OT environment? Have the risks from prior Operational Assessments been addressed? Is there sufficient OQE to assess, for each COI, that it will be satisfactorily resolved? While this TRR criterion addresses overall risk, the OTD must examine the data for each COI. The OTD should be ready to discuss each COI's assessment at the TRR. It is helpful to insert a separate slide that lists the assessment of each COI in order to give the TRR Panel a more complete depiction of risk entering the test. The program's current Platform Mission Tasks (PMT) View generated by the Test and Evaluation Working-level Integrated Product Team (WIPT) can be a useful COI assessment aid of the status of testing to date, and assist the OTA in making an assessment for the likelihood that each COI will be resolved satisfactorily; however, the PMT View should not be provided by the OTA to the PM as a predictive assessment for inclusion in the OTRR. The absence of DT data or OQE prior to a TRR could be an indicator of high risk to satisfactory COI resolution. Consult with warfare division or test squadron leadership and consider coloring that COI "red," not "white." For this criterion, if there is at least one "red" COI in the OTA assessment, that will translate to a "red" for the TRR criterion.

The OTD shall prepare the TRR criterion assessment with a color code of green or red for each, indicating whether the criterion has been met or not met. For IOT&E and Follow-on Operational Test and Evaluation (FOT&E), the colors are either "green" for ready or "red" for not ready. There are no "yellow," "lime," or "orange" color codes. Either the system is ready, or it is not. For EOA, OA, or QRA, the color "yellow" is acceptable because the test is assessing risk. See SECNAVINST 5000.2G.

The program's test management team and the OTD will usually correspond when creating the OTRR presentation. The OTD should pay careful attention to the PM's readiness assessment and note any perceived differences. In all cases, the OTD should pre-brief their chain of command on program OT readiness prior to the OTRR. In cases where any criterion is red, the OTD should note the reasons for the assessment and discuss potential mitigations with the chain of command. Any red criterion (not just an OTA criterion) requires a brief to the Director prior to release of the OTD's OTRR briefing slides to the PM for incorporation into the presentation. The Director may elect to call the PEO directly to discuss program readiness prior to the OTRR. A red criterion does not mean "don't go to test," it means "discussion is required at the TRR."

Although the OTD will normally present the OTA criteria brief at the OTRR, the Warfare Division Director or the test Squadron CO is normally the senior OPTEVFOR representative at any Test Readiness Review, or will designate an appropriate representative.

3.2 OTD ACTIONS FOR CERTIFICATION EXCEPTIONS

There are two categories of "T&E Exceptions" in SECNAVINST 5000.2G: a "Deviation from SECNAV Policy" is used when any of the 16 certification criteria is not met. A "Deferral of Test Requirements" is used when a required system capability will not be ready for OT data collection. If the program requests to be "Certified for OT with T&E Exceptions" in either case, the OTD must fully understand the characterization of the exception(s) and should then take the following actions:

- If the OTD does not believe the request is appropriate, the issue must be immediately raised to the Warfare Division Director/Squadron CO for discussion with the OPTEVFOR Front

Office. If the Director does not concur with the proposed exception, he may discuss the request with OPNAV N94, presenting the rationale for recommending against granting the exception.

- When OPNAV N94 has granted an exception for Deferral of Test Requirements, the OTD should discuss the following impacts with the program's T&E Manager:
 - When will the capability, for which the exception was granted, be available for OT?
 - A granted exception may delay but does not eliminate the system's requirement to achieve an operational capability, that capability must still be operationally tested.
 - If required by the nature of the exception, the OTD will verify an FOT&E test phase exists or will be created and funded via a TEMP update. Issues with the funding or placement of deferred capabilities into FOT&E should be elevated to the OPTEVFOR chain of command for resolution.
- An approved Deferral of Test Requirements changes the scope of the test, meaning those requirements will not be evaluated in this test phase, and will not be included in the test report as a deviation, limitation, or deficiency. An OT plan change will most likely be required. For programs on DOT&E oversight, the impact of the deferral must be discussed with the DOT&E Action Officer before the TRR. Ideally, this deferral will not be a surprise and will have been coordinated with the program's T&E Working Integrated Product Team (WIPT) prior to the TRR.

CHAPTER 4 - ON TEST

4.1 TEST PLAN APPROVAL

Operational testing cannot commence without an approved OPTEVFOR test plan which also must, by law, have DOT&E approval if on the DOT&E Oversight List. Collection of IT data intended to be qualified for OT use does not start without an OPTEVFOR-approved Data Collection Plan (DCP). If on oversight, the signed DCP is provided to DOT&E prior to the start of the Integrated Test.

4.2 COMMENCING TEST

Prior to departing for the test, the OTD should arrange with the LTE or SH/OTC to transmit the OT Commencement message at a mutually agreed time per the test plan (e.g. the time a submarine gets underway from a pier and data collection starts), or when notified by the OTD. Use the Commencement of OT Message format in the OPTEVFOR knowledge management repository. While it may seem trivial because “everybody already knows what we are doing”, the Program Manager may need this message to support tracking for the Acquisition Program Baseline. It also provides a concrete date/time to refer to in the post-test process.

4.3 OTD RESPONSIBILITIES DURING TESTING

The OTD should ensure:

- The test is conducted per the approved test plan and supporting documentation such as the LOI or OPTASK. In addition to the pre-test brief, the OTD should conduct test briefs, as required, during testing to ensure test personnel and Adjunct Testers:
 - Understand their responsibilities with respect to data collection and control.
 - Know the critical tasks, measures, and data supporting those tasks and measures.
 - Understand the daily testing battle rhythm and the expectations for how and when to communicate with the OTD.
 - Immediately communicate any safety issues and any other issues preventing the proper collection of data supporting critical measures.
 - Are encouraged to identify potential deficiencies as they become known and draft Blue and Gold sheets on site during test. While a complete draft Blue or Gold sheet may be difficult to create, identifying the issue, the conditions under which the issue occurs, any mitigations for it, and the issue’s impact on the mission should be collected, at a minimum.
- The OTD test narrative (see below) is maintained as a running account of how testing actually occurred. When in doubt, write it down!

CAUTION

Training and expecting all members of the test team to “write everything down” cannot be over-emphasized. Many post-test processes have been negatively impacted because the team could not remember “what” happened or “why” it happened several months ago while on test. Even seemingly trivial bits of data such as a 5 degree course change or an aircraft descent of 250 feet may be important during later data analysis. Data sheets cover all anticipated data requirements, but the unanticipated data requirements can be equally important. **Write everything down!**

- Any deviations from the test plan or LOI are noted, their impact assessed, corrective action taken, and contingency plans implemented, as necessary. Unusual events during testing should be noted. Be prepared to alter the test schedule if circumstances warrant, keeping division/squadron leadership informed. See the guidance on test plan deviations in paragraph 4.5 below.
- The Warfare Division Director/Squadron CO is advised of any potential deficiencies which could result in a COI being unresolved or resolved unsatisfactorily. As test events and data collection progress during test, and analysis indicates potential deficiencies, the OTD should provide draft Blue and Gold sheets to division or squadron leadership.

OTDs are encouraged to use scoring boards during test, referring to the conditions described in the test plan, to ensure the data were correctly collected, the data are accounted for, that missing data are documented with associated impacts to future analysis, and to make a quicker transition to the post-test process. Scoring boards on test also support investigating and accurately describing system failures or faults. Review the test plan’s enclosure (2) and the Test Reporting Handbook for scoring board guidance.

4.3.1 DAILY TEST BRIEF

At the beginning of each test day, the OTD should gather the OT team and Adjunct Testers in a central location to synchronize the day’s testing. Testers at remote locations should be provided a means to attend this meeting virtually, and the attendance of any service(s) coordinators should be mandatory to facilitate follow-on crew briefings. The OTD should review:

- The day’s test objectives, the schedule, and applicable event cards,
- Data collection sheets and data collection assignments,
- Required test conditions and tolerances,
- Hardware and software configurations,
- Safety and Go/No-Go criteria and the current status of those criteria,
- Operational Risk Management considerations,
- Emergency procedures and “What If?” scenarios,
- Test limitations and restrictions,
- SUT maintenance status, noting any impacts or delays,
- Special test equipment, instrumentation, and data recording equipment status,
- Internal and external communications plans and system status.

The OTD should ensure each team member understands their role, where they will be, when they will be there, and what they will do. This is the opportunity to walk through the whole day to set the team up for success.

4.3.2 DAILY TEST HOTWASH

Following completion of the day's testing, the OTD should muster the OT team and Adjunct Testers as for the Daily Test Brief, but with the purpose of debriefing the test day and collecting the test data for accounting, protection, and storage. Although the test team members will likely be tired and be ready for a break in the action, the OTD needs to retain focus for the time required to wrap up the day's events. At the hotwash, the OTD will:

- Verify all required data were collected: data sheets, interviews, surveys, and automated data, and review it for legibility and completeness.
- Review each of the day's events to check the status of all test objectives. A best practice is to review each event card line by line and ask the test team to chime in if they saw any issues worth discussing or noting in the data sheets.
- Discuss the need to modify the future schedule to support any retests or delayed test events.
- Ensure the required test conditions were met and those conditions were documented.
- Review the next day's events to ensure any prep work is started.
- Ask for test team contributions to the daily Situation Report (SITREP).
- Ensure the data is either transmitted to a central location, stored securely at the test site, or both if required. Protect classified data in accordance with standard security procedures.

Following the hotwash the OTD should determine if a post-event debrief with test unit leadership is required or desired. On ships, this can often be combined with the nightly operations brief.

4.3.3 DAILY OTD SITREP

Every evening on test, the OTD will send an email SITREP to warfare division/test squadron leadership, copied to the 01C Action Officer and 01B Core Team Facilitator (CTF) (who follow test execution to anticipate any assistance the team might need). Be careful of classification requirements and transmit the SITREP on SIPRNET if needed. Although this SITREP's format might vary among the divisions or squadrons, in general it consists of:

- Accounting for personnel on test, those enroute or departing, and their locations.
- A summary of the last 24 hours of testing. How did it go? It is best to account event by event, ensuring the event titles are used vice just event numbers because this SITREP should be understandable without access to the test plan.
 - When collecting data for Response Variables (RV), the specific completed runs should be noted as well as any changes from the planned run matrix.
- Any limitations or deviations experienced.
- Any concerns voiced by DOT&E representatives.
- Any concerns voiced by the test unit leadership.
- The schedule for at least the next 24 hours.
- Status of draft Blue/Gold Sheets (include those as attachments if possible).
- Any other OTD or test team concerns for leadership attention.

4.4 ON SCENE RECORD OF TESTING

OPTEVFOR lessons learned indicate an OTD narrative taken in real time and written in sufficient detail, so the test scenarios could be reconstructed, is critical for deficiency and test reporting. An OTD should never depend solely on automated electronic data recording, as some times these recorders fail or the media is delayed in routing and analysis. In addition, third-party analysts are usually required for automated test data analysis and need a detailed narrative to interpret the electronic media effectively. While thorough, well thought-out data and survey sheets in the test plan are necessary, plan a running account of testing as part of the records of the test. In many cases, this account is best made on a notebook or a stand-alone laptop as the operation progresses. If possible, periodically send this narrative electronically to the Headquarters via an email. In any event, the goal is for the OTD to walk away with a detailed written description of how the testing actually occurred: what happened, when, and who (what) was involved. It identifies the operation (by run number, etc.) and provides a running, time-correlated commentary to the end of the exercise. Place particular attention on recording unusual events (breakdowns in communications, intruders in the area, etc.). Note and explain differences between actual and planned scenarios. The OTD's impressions, qualitative assessments of performance, and any other information to later reconstruct the testing should also be recorded.

During the Post-Test Iterative Process (PTIP), the OTD will have to explain test details and issues weeks or months after they occurred to panels of individuals who were not present for the test. Having a detailed written record of events as they occurred will go a long way towards making that process as smooth as possible.

4.5 TEST PLAN DEVIATIONS

All events in an approved test plan are expected to be completed, and all required data collected, by the end of the OT phase for which the plan was written. Once testing has begun, modifications from the planned test are called test plan deviations. A test plan deviation might later become a test limitation, but any difference between what was planned and what actually occurred is a deviation that must be recorded for later inclusion in the Data Analysis Summary. If a test plan deviation becomes, or is, a test limitation, it won't be recorded as both in the report, it will be recorded as a test limitation. To prevent confusion with test limitations, the previously used "Minor" and "Major" categories for deviations have been eliminated. The OTD's actions when managing a deviation are based on the deviation's impact on the test scope and therefore, test adequacy. When determining impact, think through the following questions:

- Does this deviation impact COI resolution?
- Does it impact the Effectiveness, Suitability, or Cyber Survivability determinations?
- Does it impact the completion of a run matrix developed using Design of Experiments?

Ultimately, the OTD must use sound judgment in determining impact. Lead Test Engineers, OIC Action Officers, Core Team Facilitators, and Analysts are available for consultation.

Some examples of deviations that do not impact test scope include: changing the location of a test team member to improve data collection; moving an event from a primary date to a backup date due to bad weather; changing an operating area (provided the controlled test conditions can be met); switching air control frequencies; and substituting a different assist ship of the same

capability. These deviations are “notifications” to the Warfare Division Director/test squadron chain of command and must be reported in the OTD Daily SITREP.

Some examples of deviations that impact test scope include: inability to complete a Response Variable’s planned run matrix; modification to an approved target configuration; completely canceling a test event; and changing the test’s controlled conditions. These deviations are “obtain approval first” situations and the OTD must seek approval for the change from the Warfare Division Director or test squadron CO as soon as possible, prior to continuing the test. The OTD should describe why the deviation is required, how the deviation is intended to be executed, and the impact of the deviation on recorded test data.

For DOT&E-approved test plans, deviations that impact test scope also require the concurrence of a DOT&E government representative. Normally, this will be the DOT&E Action Officer. Note: employees of the Institute for Defense Analyses (IDA) are not government representatives and they cannot approve test plan deviations.

These deviations will also be documented in the Daily OTD SITREP, and will very likely become test limitations based on the results of the post-test Scoring Board.

If an event is already in progress, and the “clock is ticking” with test assets, the OTD may continue the event and think critically to gather as much data as possible, then contact their chain of command. For example, if an event requires four aircraft but one of the four has to Return to Base for a mechanical problem, the OTD may continue the event with the remaining three, depending on the situation.

A deviation from approved safety criteria (e.g. “Go/No Go Criteria”) must be carefully considered, concurrence from the CO of the test unit must be obtained, and then approval must be sought from the Warfare Division Director/Squadron CO. Deviations of this nature should be rare. In all cases, err on the side of safety!

4.6 EARLY TEST TERMINATION AND DEFICIENCY REPORTS

If at any time during OT it becomes apparent the system being tested is not operationally effective and/or operationally suitable, or is unsafe to operate, and continuing the test would be a waste of resources, OPTEVFOR may decide to terminate the test. This condition may result in a Deficiency Report to the CNO, info the cognizant Systems Command (SYSCOM), PEO, PM, and the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RDA)). A Deficiency Report suspends OT. OPTEVFOR will also provide the appropriate test data to the PM for corrective action. The report will clearly characterize system performance leading to its placement in a “deficiency” status.

The OTD in the field recommends placing the system in a “deficiency” status to the Warfare Division Director or Squadron CO/COTD by drafting a Severe Deficiency “Blue Sheet” and transmitting it to them only. OPTEVFOR then decides whether to send an official Deficiency Report, which is NOT the same thing as a Severe Blue Sheet.

The distinction between a system having deficiencies, and a system being in a deficiency status, is critical. Nearly all systems have deficiencies, but very few of those deficiencies are of the severity to place a SUT in a deficiency status in accordance with DoD policy. The decision to send a Deficiency Report is therefore reserved solely for the Director.

NOTE

Per the DoD 5000.02(series), issues that cause a SUT to be placed in a deficiency status must be resolved prior to proceeding beyond LRIP or limited deployment. When a system undergoing OT&E is placed in a deficiency status, recertification by the SYSCOM Commander, PEO, or Direct Reporting Program Manager (DRPM), per SECNAVINST 5000.2G, will be required prior to resumption of OT.

In practice, Deficiency Reports are rarely, if ever, used. OPTEVFOR policy is to directly communicate the issues between the Director and the Program Executive Officer (PEO) and if they agree testing should not proceed, the PEO will decertify the system for OT.

4.7 ANOMALY REPORTS

During OT, failures or anomalies may occur which impact OT and require correction but are not so severe the system needs to be placed in a “deficiency” status (see paragraph above). Issues linked to critical tasks which appear to be Severe or Major 1 deficiencies (preclude or have a critical impact on mission accomplishment) might meet this criterion. In the past, OPTEVFOR would release an Anomaly Report via message to the CNO, SYSCOM, PEO, and PM. The Anomaly Report message is now rarely, if ever, used.

In its place, OPTEVFOR now shares draft risk or deficiency sheets (“Blue Sheets” and “Gold Sheets”) with the affected PM(s).

- OTDs should document potential risks or deficiencies in draft Blue or Gold sheets.
- OTDs should keep their respective Warfare Division Director or Squadron CO/COTD informed of emerging risks/deficiencies by forwarding draft Blue and Gold sheets so division/squadron leadership can review them and then inform the Director. The properly marked draft Blue or Gold sheet (including the draft watermark & footer note) may be released by the Warfare Division Director or Squadron CO/COTD to the PM for their awareness and comment.

If the Warfare Division Director or squadron Commanding Officer determines a system’s performance requires an Anomaly Report be sent, and after briefing the Director for his concurrence, they can approve the draft message and send it to the PM for comment. If OPTEVFOR determines that the CNO and the acquisition chain of command should be made immediately aware of the problem, then an Anomaly Report message will be prepared for the Director’s signature. See the Anomaly Report message format in the OPTEVFOR knowledge management repository.

4.8 OTD RESPONSIBILITIES AFTER TEST OPERATIONS

The post-test responsibilities identified below should be discussed and understood at the pretest brief. The OTD should ensure:

- All data are delivered to the OTD, or as specified in the test plan.

- Proper safeguards are provided for all classified materials being returned to the command by the OTD or members of the test team. This includes accounting to the Security Manager for all classified materials hand-carried prior to testing.
- The initial post-test brief (see the Test Reporting Handbook) is scheduled as soon as possible, normally from 5 to 10 working days following the return of the test team to OPTEVFOR or squadron headquarters.
- During this post-test brief, which should be drafted while the OTD is on test, the OTD should discuss potential Blue and Gold Sheets, differences between what was planned and what was accomplished and why, mitigations for any missing data, test deviation impacts, and the POAM for the PTIP.
- If the test unit has been asked to add OPTEVFOR to message, email, or data distribution lists in order to support data collection, and all the data from those distributions have been collected to support reporting, the OTD should ask the test unit to delete OPTEVFOR from those distribution lists to avoid clogging communication paths.

As the test phase progresses toward the PTIP, the OTD must stay in touch with any remote data analysis process, to include attending Data Analysis Working Groups, in preparation for OPTEVFOR Scoring Boards.

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CHAPTER 5 - OBSERVING DT

The OTD's role in DT is very different from their role in OT or IT. The OTD is in charge during OT, and the OTD cooperates with the program's test team while executing IT. When observing DT, which should be covered by a Program Office/OPTEVFOR Memorandum of Agreement (MOA) when either a DT assist Letter of Observation (LOO) or an Assessment of Operational Capability (AOC) letter is being written, the OTD is an observer and the conduct of the testing is the Program Manager's Responsible Test Organization (RTO) responsibility. It is important to remember the OT team is in an observation mode, not directing the test, and the team members are invited guests of the Program Manager.

During DT, the OTD and any other OPTEVFOR representatives should maximize opportunities to interact with and learn from the DT team, which is normally comprised of system Subject Matter Experts. The OTD should attend all pre-event briefings, all MOA-defined test events, the "hot wash" for those events, and any post-test data analysis meetings. In order to expedite the completion of either the DT assist LOO or the AOC letter, the OTD should draft much of that document and any associated Blue/Gold Sheets while the test events are in progress and not wait until the test's completion. Careful note taking, honest discussion with the Program Manager's representatives, and adherence to the requirements in the MOA are required to present acceptable post-test documentation.

The OTD may be responsible for the logistics (including financial arrangements) and security procedures getting to and returning from the test site(s). Close coordination with the program office's test manager is required, with the goal of the OTD becoming an asset and not a burden to the DT team.

When observing DT to accomplish an AOC, the OTD must verify the system is being tested in the proper configuration and under the conditions described in the MOA. If the configuration and/or conditions have changed, the OTD should assess the deviations between the MOA and the test, understand any impacts to the proposed AOC, and contact division/squadron leadership with a recommendation to continue or discontinue DT observation.

Prior to, and immediately following DT, the OTD should check with division and squadron leadership on whether a pre-test and post-brief is required. If the OTD will be preparing either a DT assist LOO or AOC letter following DT, conducting these briefs is a best practice.

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APPENDIX A - ACRONYMS

ACOTD	Assistant Chief Operational Test Director
AOC	Assessment of Operational Capability
AOR	Area of Responsibility
ASN(RDA)	Assistant Secretary of the Navy (Research, Development, and Acquisition)
ATO	Authority to Operate
ATT	Authority to Test
CFFC	Commander, U.S. Fleet Forces Command
CNO	Chief of Naval Operations
CO	Commanding Officer
COI	Critical Operational Issue
COMPACFLT	Commander, U.S. Pacific Fleet
COMSUBLANT	Commander, Submarine Force Atlantic
COMSUBPAC	Commander, Submarine Force Pacific
COTD	Chief Operational Test Director
CTF	Core Team Facilitator
DCP	Data Collection Plan
DoN	Department of the Navy
DOT&E	Director, Operational Test and Evaluation
DT	Developmental Test
EW	Electronic Warfare
FOT&E	Follow-on Operational Test and Evaluation
IDA	Institute for Defense Analyses
IOT&E	Initial Operational Test and Evaluation
ISIC	Immediate Superior in Command
IT	Integrated Test(ing)
ITRR	Integrated Test Readiness Review
LCSP	Life Cycle Sustainment Plan
LOI	Letter of Instruction
LOO	Letter of Observation
LTE	Lead Test Engineer
MOA	Memorandum of Agreement
M&S	Modeling and Simulation

NTSP	Navy Training Systems Plan
OCE	Officer Conducting Exercise
OMF	Operational Mission Failure (or Fault)
OPAREA	Operation Area
OPCON	Operational Control
OPNAV	Office of the Chief of Naval Operations
OPTASK	Operational Task
OPTEVFOR	Operational Test and Evaluation Force
OQE	Objective Quality Evidence
OT	Operational Testing
OTA	Operational Test Agency
OTC	Operational Test Coordinator
OTD	Operational Test Director
OTRR	Operational Test Readiness Review
PEO	Program Execution Officer
PIC	Pilot In Command
PM	Program Manager
POAM	Plan of Action and Milestones
PTIP	Post Test Iterative Process
RV	Response Variable
RTO	Responsible Test Organization
SECNAV	Secretary of the Navy
SH	Section Head
SITREP	Situation Report
SoS	System of Systems
SUBOPAUTH	Submarine Operating Authority
SUT	System Under Test
SYSCOM	System Command
TDA	Test Design and Analysis
TEMP	Test and Evaluation Master Plan
TRR	Test Readiness Review
TTVR	Test Target Validation Report
TYCOM	Type Commander
WIPT	Working-level Integrated Product Team
WSESRB	Weapon System Explosive Safety Review Board

APPENDIX B - TEST EXECUTION CHECKLIST

1. Purpose

This checklist was developed “by OTDs, for OTDs” over several years. It should be consulted during the test planning process because some test asset requirements, such as “pre-faulted modules” and data collection and analysis personnel funding require up to 18 months’ preparation. Not all the checklist items will apply to every test, and the OTD should apply critical thinking to each and add items as required. The months prior to OT will be very busy with briefings, internal and external communications, asset and funding tracking, and making sure the test team is ready. This checklist is designed to help the OTD manage the details, arranged in logical blocks for ease of reading and applicability. Feedback to 01C is always welcomed!

2. Test Command, Control, and Communications

- Who is the OPTEVFOR primary Point of Contact (POC) with SUT unit leadership? OTD? Lead Test Engineer? Section Head?
 - Do you have an alternate POC in case the OTD is not available?
- Has the OTD met with and briefed OT to the SUT leadership team prior to the test?
 - Note: Briefing that team well-prior to the test (3 months), and the Immediate Superior In Command (ISIC) as well, is beneficial to test conduct.
 - Do you understand the constraints in the SUT’s schedule (e.g. training and maintenance availabilities)?
 - Do you know the status of any required Installation and Checkout (INCO), System Operability Verification Test (SOVT), and certifications?
- If you are leveraging a Fleet exercise:
 - Who are your staff points of contact? Phone numbers? Email addresses?
 - Have you briefed (at least) the staff N3 on your test objectives and your requirements?
 - Do you understand the constraints of the exercise environment and its impacts?
- When and where is the SUT leadership team being briefed at test start?
 - Who is getting a written copy of the test plan?
 - How much are you planning to disclose, and to whom?
- Are all your Adjunct Testers identified?
 - Have they been briefed on their responsibilities?
 - Have you provided and have they all signed OPTEVFOR non-disclosure agreements?
 - What is your pre-planned response to an Adjunct Tester trust violation or pre-disclosure?
- When and where will the daily test team briefs and debriefs (“hot washes”) occur?
 - Whom are you inviting to those briefs? Are they Adjunct Testers?
- Will you provide input to the SUT unit’s daily briefing cycle? Do you understand that briefing cycle?
- Will you need to provide navigation track data to ships/aircrews?
- Does the CO want a daily update from the OTD?
 - Who will give it to him? In what format? When? Where?
- Is there a workspace assigned exclusively for the Test Team use?
- Will the test team need wireless communications? If so, who requires it? Where to obtain?
- Do you have the cell phone numbers of SUT leadership and test team members?

- Be prepared to call/text them with test schedule changes.
- Make sure everyone has the OTD's cell phone number.
- Does the SUT unit need to provide:
 - Daily Eight O'clock Reports? Department logs? Maintenance plans?
 - Maintenance reports? Casualty Reports? Flight schedules? Night Orders?
 - Who are your POCs to obtain these?
 - How will you obtain, evaluate, store, and transmit those documents?
- What is your pre-planned response for a safety issue during test?
- What is your plan in the case of an incident, accident, or near miss?

3. External Communications

- Who is going to draft/send the OTD SITREP? Do you have a Division-approved format?
 - When will that SITREP go out? Who are the addressees?
 - Do those addressees have and understand your test plan?
- Do you have the desk and cell phone numbers for your Division Director, B-Code and LTE?
- Do they have the OTD's cell phone number?
- Is there a commercial phone number for OTC/OTD which will be reliably answered?
 - Do the Division Director, B Code, LTE, and others have it?
- Who is going to need NIPRnet and/or SIPRnet access at the test location?
 - Do you need to bring Cyber training and SAAR-N forms for them?
- Do you need an OPTEVFOR "WiFi Hotspot" for the team?
 - If so, see Information Resources.
- What radio, data (including tactical data links) and/or chat communications circuits are required to support:
 - Operations on a Test Range?
 - Operations off a Test Range?
 - Operations with aircraft?
 - Operations with surface or subsurface vessels?
 - Are those communications required to be Clear or Encrypted?
 - If encrypted, do all participants have the correct keying material?
- Will you need Secure or Non-secure Video Tele Conferencing capability? If so, who will arrange it?
- Who is your POC for the unit's Communications Plan and any changes?
 - When are your requirements due for integration into that Plan?

4. Test Intel Package

- Who is the unit's POC to receive all OT intelligence disclosures?
- Does the "Scenesetter" you will provide address:
 - All target types allocated for the test? Manned A/C? Helos? Drones? Boats? Submarines?
 - Credible background information?
 - Real and synthetic geography/geometries (for example: swept channels)?
 - Does the test geography cover red force air bases, CDCM sites, surface OPAREAs?
 - Has the Enemy Order of Battle been provided in time to stimulate test unit preparation?
- Will you do "real time" intelligence injects? If so, how?
- Will you do nightly intelligence updates? If so, how?

- How will your intelligence updates mesh with required Weapons Postures for live fire?

5. Operating on a Test Range

Operations on a Test Range require extensive planning and foresight. The OTD should have initiated Test Range planning and communication in conjunction with the start of the OPTEVFOR Test Planning process.

- Who are the primary and secondary POCs at the Range for your test?
- Have the POCs provided the OTD the Range's expectations for planning, documentation, and funding?
- Does the Range have the completed and signed OT Plan?
 - Check with them to meet their planning deadline.
 - Does the Range need any other documentation?
- Does the Range need to rehearse the test's execution for new weapons and new test conductors? Do they need OTD assistance? When will they rehearse?
- Is a Range Safety Brief to the test unit required?
 - When and where will it take place?
 - What are the clearance and transportation requirements to support?
 - Who is giving the brief?
 - What are the audio-visual requirements to support?
 - Who is the expected audience?
 - Is this event in the unit's weekly schedule?
 - Will OPTEVFOR send a representative? If so, whom?
- What are the dates the test unit is scheduled to be on the Range?
 - Has the OTD done the "time/distance problem" to ensure feasibility?
- What are the external communications requirements with the Range?
- Are Range locator beacons required for the test unit?
 - If so, when and where are they going to be installed?
 - If so, is a beacon technician required to monitor them?
 - If so, when and where are they going to be removed?
- Where will the test unit stage outside the Range boundaries?
- Will test unit sensors need to be restricted to deconflict with range sensors/communications?
- When is the test unit authorized to enter the Range?
 - What are the Range entry procedures? Who will execute those procedures?
- What are the Range "Op Numbers" (unique identifier for each range event) for reference on all communications?
- What are the Range's communications guard requirements?
- Who is the Range's Operations Conductor?
- Who is the Range Lead or Flight Test Engineer for these Ops?
 - Has the OTD personally met with Range personnel to discuss the plan?
- What are the phone numbers for the Range points of contact? Email addresses?
- Who will talk to the Range Operations Conductor during the event(s)?
- What is the schedule of events for drone target operations?
- What is the "drop dead time" for drone target operations?
- Will OPTEVFOR have a representative ashore at Range Control for the events?
 - Does the Range know this? Has a security clearance been sent?

- Does the test unit clearly understand Green Range/Clear to Fire calls?
 - Who from the test unit will acknowledge those?
- How will the test unit's CO be kept informed of safety requirements/issues while the warfighting team remains "in the game"?
 - Where on the test unit will the OPTEVFOR representative be located?
 - What communication capabilities will the OPTEVFOR representative have access to?
- Does the test team and test unit understand "off nominal" target scenarios and procedures?
- Do you understand the plan to launch backup targets if required?
- If using a Gun Weapons System (GWS), where and when will you conduct PACFIRE?
- Who will control the GWS in the case of a "Rogue Drone" call to the ship?
- What and when is the plan for telemetry checks for weapons?
 - Where does the unit need to be to support?
 - Do you have expertise onboard to conduct telemetry checks?
- For small boat operations, how will you control the boats? Where will the control ship be?
- Following the test, what data will the Range be expected to provide (e.g. target ground truth)?
 - What format will the data use? What media? What classification? Delivered to whom and when?

6. Sensors, Weapons, and Decoys

- Do test unit sensors need to be specially configured (e.g. sectoring) to achieve test objectives?
 - Who will configure? When will they configure?
 - How do you avoid pre-disclosure to the watch team members?
 - Are there operating restrictions for sensor frequencies? Will they impact your test?
- How will the SUT be prompted to enter automated decision tools (e.g. engagement and identification doctrines) IAW your test objectives?
 - What if they decide to use different parameters than you need? How will you change?
- Do you need, and if so do you have, Weapon System Explosive Safety Review Board (WSESRB) approval to fire live weapons?
- Are all required live weapons and decoys allocated?
 - Do you understand any safety or OPSEC restrictions on their use?
- Are those weapons correctly configured? Do you need telemetry keying material?
- When and where will the weapons be unloaded?
- When and where will the weapons be offloaded?
 - What crane/personnel services are required for onload/offload?
 - Are those services scheduled?
 - Does the test unit need OPTEVFOR assistance with an onload plan?
- What does the test unit need from you to generate their firing plan(s)?
- When, where, and how will the test unit upload the weapons from magazines to launchers?
- When, where, and how will the test unit download unused weapons from launchers to magazines?
 - Are the weapons assigned to the appropriate cells/tubes to support the planned events?
 - Have these loadouts been checked by weapon ISEA experts to ensure the correct round is fired in the correct order to achieve test objectives?

- Does the test unit have their pre-fire checks complete? Do they need assistance?
 - Does the test unit have qualified loading teams?
 - Does the test unit have misfire/hangfire/dud procedures? Are they trained to use them?
 - Does the test unit have a complete set of all required weapon keys and plugs?
 - When will they issue them? Who will issue them?
- Do you need Explosive Ordnance Disposal support for your test? For example, are you firing explosive projectiles at floating targets? Or are you using a target that must be recovered following a warhead malfunction?
 - If so, who is arranging EOD services?
 - Who is the EOD point of contact? Have you briefed the EOD personnel on their roles?

7. Simulated Weapons

- Are all simulator requirements identified?
- What is the plan to get them onboard the test unit?
 - Who is getting them onboard?
- Are SMEs required to use these simulators?
 - Are those SMEs part of the test team?
 - Do those SMEs need to arrive at the test unit early to prepare?
- What is the plan to offload the simulators?
 - Are crane services required for onload/offload?
 - If so, are they scheduled?
- Are simulator reset/power/maintenance requirements understood?
- Do you have any issues with a mix of live and simulated weapons in the same launcher?
 - Do you need approval for a “mixed load”?

8. Targets

- Are all the required targets allocated? Who is funding them? Are they paid for?
- Are the targets physically at their launch locations?
 - If not, when will they be there? How will they get there?
- Are the targets correctly configured?
- Are backup targets allocated?
- What is the plan if one target fails? If two targets fail?
- Who is the POC for the targets ashore? Who answers any last-minute questions?
- Do the targets’ capabilities match what the ship has for Enemy Order of Battle?
 - Do sensor setups and ID and Engagement doctrines encompass target parameters?
- If target limitations impact realistic threat presentations, how will you disclose the parameters of the targets, including seeker parameters, to the watch teams so they think the targets are actual threats?

9. Manned Aircraft Services

- Is the airspace assigned to accomplish the test objectives?
 - How will the OTD communicate with the airspace controlling organization?
- How will manned aircraft services be scheduled?
- How will manned aircraft services be paid for?
- Who is the Air Services Coordinator (ASC)?

- Has the OTD met with the ASC to discuss the test?
- Where will the ASC be located during the test?
- How will the OTD communicate with the ASC on test?
- Are there any safety of flight restrictions on the aircraft?
- What are the aircraft(s) weather minimums?
- What are the aircraft standoff requirements from the test unit?
 - Does the test unit CO understand and concur?
- Have you accounted for any crew rest requirements in your planning?
- How will the aircrews be briefed? Where? When? By whom?
- Does the ASC have all the expected profiles to be flown?
- How will the ASC be informed of test plan or schedule changes?
- How will OT team be kept informed of aircraft status by the ASC?
- What aircraft are allocated for the test? Do you have backup aircraft?
- When will they arrive at the test locations?
- From where will they base?
- What is their nominal endurance per mission?
- Do the aircraft need emitter pods?
 - If so, where and when will they get them?
 - If so, what are the settings for those pods?
 - If so, how will the aircrew control those settings?
- What is the plan if an aircraft is down for maintenance?
- Do you need a controller for the aircraft? Who is it? Are they an Adjunct Tester?
- If doing aircraft control on the test unit, how will you avoid pre-disclosure?
- What is the plan to brief the air controller?
- Are the aircraft covered in the Enemy OOB? Including their emitter pod settings?

10. Electronic Attack (EA) Services

- When planning any EA, are your emissions authorized in your OPAREA? Are they restricted to certain dates/times?
 - Who will request permission to conduct EA? How far in advance is the request required?
 - Is a Small Scale EA request message required to support the test? If so, who will send it?
- When using EA generated by aircraft:
- When is the EA aircraft scheduled to fly in your test plan?
 - Is the aircraft funded? Is it scheduled with the squadron/contractor?
 - When will the aircraft arrive at the test location?
 - From where will it be based?
 - What is its nominal endurance?
 - What are the required settings for its mission?
 - How will you talk to the EA aircraft when airborne? Secure or Unsecure communications?
 - How will you know when it is using specified techniques?
 - Create code words for sensors and settings?
 - Plain or encrypted communications with the aircraft's EA operator?
 - Do you need an air controller for this mission? Where will the aircraft be stationed?
 - On axis? Off axis? Flying in with the other threat surrogates?
 - Have you briefed the aircrew on this plan?

- How will the OTD know the EA payload is functioning?
 - Pre-launch ground test?
- Is the EA payload covered in the Enemy OOB provided to the test unit?
- If you are planning to conduct EA against, or to deny, GPS services you **MUST** work with the test range to **ENSURE** that clearance has been obtained from the Federal Aviation Administration. FAA clearance requires at least a two week-notice!
- Is a Small Scale EA request message required to support the test? If so, who will send it?

11. Vessel Services

- Is the required water space assigned to accomplish OT objectives?
 - How will the OTD communicate with the water space controlling organization?
- How will vessel services be scheduled?
- How will vessel services be paid for?
- Who is the Services Coordinator (SC)?
 - Has the OTD met with the SC to discuss the test?
- Where will the SC be located during the test?
- How will the OTD communicate with the SC during test?
- Do the vessels have crew rest requirements?
- How will the vessel crews be briefed? Where? When?
- Are there any safety restrictions on the vessels?
- Do commercial vessels need to be modified to support the test?
 - If so, are those modifications approved by the Coast Guard and American Bureau of Shipping (ABS)?
- What are the vessels' weather minimums?
- What are the vessels' standoff requirements from the test unit?
 - Does the test unit CO understand and concur?
- Does the SC have all the expected profiles to be driven?
- How will the SC be informed of test plan or schedule changes?
- How will the OTD be kept informed of boat status?
- What vessels are allocated for the test? Do you have backup vessels?
- When will the vessels arrive at the test locations?
 - From where will they base?
- What is their nominal endurance per mission?
- Do the vessels need radar, smoke generators, operator targets, video recording?
 - If so, where and when will they get them?
- Who will control the vessels? Are they an Adjunct Tester?
- If you are using a control vessel to manage unmanned surface targets, where will that control vessel be stationed for its own safety?
- If doing vessel control from the test unit, how will the OTD avoid pre-disclosure?
- What is the plan to brief the boat controller?
- If using High Explosive rounds or missiles, have you coordinated the EOD Services required to recover a boat in the event it does not sink? If sinking is required, do you have the extra ammunition or EOD services to sink it?

12. Other Test Assets (Blue Forces)

- Does the test require Blue Force ships or aircraft (e.g. a DDG, Carrier Air Wing)?
- Have those assets been scheduled for OT?
 - Is OT their sole priority during this timeframe? If not, what else are they doing?
- Who/when is briefing those crews?
 - Do they know:
 - Communications requirements?
 - Stationing/positioning requirements?
 - Task group organization?
 - Common identification doctrine?
 - Data link network configuration?
- Is an OPTASK required for the test? Who writes/sends it?
- Is an OT team member required onboard?
- Do those assets need to collect data (manual or automated)?
 - If so, assign a data collector or Adjunct Tester to collect data.
 - Is training required for primary/backup personnel to ensure the data is gathered?
 - If test team personnel are required onsite, see the sections of this checklist for Test Command, Control, and Internal Communications; Test Team Logistics; and Data Collection and Analysis and make sure their administrative needs are covered.

13. Test Team Logistics

- What is the total size of the OT team (Active Duty, Gov't Civilian, and/or Contractor)?
 - Are all of them ID'd by name, email, phone, and command?
 - Do you have the contact info for their Supervisors?
- How will they send their clearances? To whom?
 - Have you confirmed receipt of all clearances with the test unit?
- Has a dress code been established and promulgated to the test team?
 - *Note: this is particularly important if test team members will be dining in a ship's wardroom.*
- When does the test team need to arrive at the test unit(s)?
 - Where will the unit(s) be located?
- How will the test team get to the test unit(s)?
 - If transportation to a test unit is required, who is making the arrangements?
- Do the test team members have laptops and gear needing to be "checked in" with the test unit?
- How will the test team stay updated regarding changes to their movement plan?
- Where are they going to muster daily? For emergencies (fire, flood, man overboard, GQ)?
 - Is there a muster sheet? Who does the mustering? Where is the muster reported?
- When is the test team going to get any required safety briefs?
- What is the test team berthing plan? Messing plan?
- Does the test unit require medical screening prior to embark? Who will do it? How?
- Does anyone require flight clearance/swim qualification?
- Does the test unit need a civilian passenger flight clearance approval?
- How many observers (e.g. DOT&E, IDA, Program Office) will be on the test?

- Have they been briefed on non-interference, pre-disclosure, and to direct all questions to the OTD?
- How is the test team paying for their meals? Cash card issue? When?
- Where at the test unit can you get paper copies/printouts made (e.g. Event Cards) when required?
- Where can you get IT media copied? Uploaded? Downloaded?
- Does anyone need a classified media “courier card”?
- If you need to release a naval message, how will you do it?
- Do you need printed aeronautical or nautical charts? How will you obtain? Who pays for them?
- When is the test team departing the test unit? Where?
- How are they leaving the test unit?
 - If transportation from the test unit is required, who is making the arrangements?
 - Where will the test team be “dropped off” after the test?
- If you are bringing IT equipment to the test unit, have you contacted the unit’s Information System Security Manager (ISSM) and described the type, quantity, location, and connectivity requirements to them?

14. Data Collection and Analysis

- Who is the Data Collection Coordinator (DCC)? Note: this should not be the OTD.
 - Does the DCC understand the test plan and OTD expectations?
- Is anyone bringing classified equipment requiring special security procedures?
- Does the test require video recording capability and media? How to obtain and pay for?
- Does the test require data recording targets (e.g. “Humannequins”)? How to obtain and pay for?
- Are civilian contracted aircraft (usually helicopters) required to transport people or data?
 - If required, does the test unit require a Civilian Helicopter Authorization waiver? Are these services scheduled in the unit’s Flight Plan?
- Does the DCC have enough media and packaging materials to cover needs and debarkation?
- Does the test require a nightly post-event analysis (aka a “Quicklook”)?
 - If so, who will do it and how? Do analysts need special tools/equipment to support it?
- Does the DCC understand all the computer storage media requirements?
- Does the DCC understand all the data extraction equipment requirements?
- What is the plan to get the data extraction equipment and storage media onboard?
- What is the plan to get equipment and media off the test unit?
- How will test results be transmitted or transported? Security requirements?
- Who is going to be the courier for the data? Do they have a Courier Card?
- Have all data collectors been pre-briefed on their roles? Have they walked through the data sheets and test card data extraction procedures?
- Do you have an assigned OPTEVFOR analyst? If not, who is the outside agency lead analyst who will be processing your data?
- Does your analyst have a required format for collected data? Does it list controlled and recordable conditions? Will it enable Exploratory Data Analysis, if required? Will your data be collected in this format?

- How will you get your analyst your data during test? How will they advise you if you have collected enough data? How will they advise you on the impact of proposed changes to your run matrix?

15. Other Considerations

- Has the test unit provided required documentation to the OTD?
 - Examples: CO's Battle Orders, watchbills, weapons doctrine, manning documents, Watch Team Replacement Plans, formal training/school lists?
- Does the test unit have the required operator and maintenance documentation on hand?
- Has the OTD reviewed applicable tactical documentation?
- Has the OTD reviewed the test unit's training status and discussed pre-test training concerns with the Warfare Division Director?
- If the test unit is a ship, does it meet the required CFFC "Tier" criteria?
- Does your test equipment onload/offload require heavy lift crane services? Are the arrangements made for those services?
- Does the test require surveys, interviews, or ask for subjective comments?
 - If so, is this called out in the test unit's schedule? Where will you conduct these?
- Is the Program planning to use a non-standard logistics support plan for the test? Are you prepared to document the differences between it and the Fleet standard plan?
- If using a test facility, like a chamber, how does it differ from the Fleet environment? Do you have a report of its capabilities and limitations? Its impact on your SUT's operation? Does it need accreditation?
- Have you talked through your plan for contingencies such as weather and test asset availability?
- If you are conducting a Maintenance Demonstration, do you have copies of the technical manuals and any other maintenance procedures? Have you reviewed them to determine anticipated technician actions? Do you have "White Cards" for casualty disclosures?
- What is the Public Affairs posture for your test? If it is "Active," how will you handle the public affairs (print media, video, photography) aspects? How will they impact your data collection? How will they impact your event timeline?
- Is there an OPSEC Plan in place for the test?

APPENDIX C - CONDUCTING TABLETOP TESTS

1. Purpose

This checklist is provided to assist OTDs conducting testing in a tabletop or audience environment. For example, ship Operational Assessments are normally conducted prior to the ship leaving the shipbuilder's yard in a conference room environment. Such tests are also known as "BOGSATs," which stands for "Bunch of Guys/Gals Sitting Around Tables." They are typically formatted with a presentation of design data followed by an expert risk assessment on the presented data. These tests have a number of unique challenges which require different test execution skills compared to testing on the actual ship. Preparations to meet those challenges are discussed below.

2. Early Test Preparation

The test plan should have identified the required skill sets and numbers for Subject Matter Expert (SME) support. The OTD must translate that plan into action with requests to SME providers listing required skillsets, experience, training, security clearance, and seniority; travel funding and test site information; and security visit request points of contact. A best practice is to provide the SME sources a blank background information sheet to be filled out by each SME, to be returned to the OTD, so the OTD can match prospective attendees to the test plan's requirements. The OTD may need to cull out proposed attendees who will yield little value to the test results. Getting the right expert support for the event is critical to getting value from the event!

Ensure the program office has travel funding to cover all the attendees. Those include SMEs doing the risk assessment, presenters, support personnel such as design analysts and ship model operators, and the operational test team.

Select a site that ideally has a conference room for all attendees with audio, video, and teleconferencing (if needed) capabilities. Ensure the video capability supports displaying the level of design detail required to assess risk. The site must also meet security requirements. If possible, it should have "breakout" rooms to enable small group discussions or be large enough that focus groups can independently caucus. When selecting the site, consider the need to have copies made, materials printed, and documents scanned. Does the site support the required internet bandwidth?

If the program offers an opportunity during the test to visit the SUT under construction, do that on Day 1. Doing so will orient your SMEs to the physical environment and support their assessment of the design.

If the program has a design model which can be displayed for SME reference, how and where will that be available to the audience? Who will manipulate it?

If the test plan's Data Collection Plan has not already specified it, the OTD must determine how the data (largely, SME responses) will be collected. Past examples have included:

- Hardcopy SME comment books. The advantage is that those can be shipped back to OPTEVFOR at the completion of testing. Legible answers are required however.

- Electronic voting on a phone or laptop. While this may be more efficient, be careful of security requirements! Also, this might require specific software installation.
- Raising of hands and large group discussions. This collection method should be avoided based on past experience as it leads to “group think.” Recording the results of small group discussions can be useful however.
- A combination of the above, carefully matched to the Detailed Method of Test.

In all cases, the OTD should “dry run” the collection method well before the test, and adjust it based on lessons learned.

Remember that all SME responses, once recorded, become material controlled by OPTEVFOR! Those responses must not leave the facility outside of OPTEVFOR control.

3. Preparing Presentations

The program office is responsible for preparing the presentations from which the SME audience will assess risk. These presentations can take months to assemble as the program must draw from disparate sources. The OTD must provide the quality assurance check on these presentations well before the event to determine if they provide the information required by the test plan. Specifically:

- Does the presentation’s format match the Data Collection Plan’s requirements?
- Is the content visible and legible to an audience member in the back of the room?
- Does the presentation provide enough data to inform a risk assessment?
- Are the presentations organized logically, for example by mission? Are the data presented in manageable amounts, such that the audience can be given a task, given the data to assess that task, and then given the time to assess that task before moving on?
- A best practice is to use mission-based scenarios to gain SME interest. For example, “the ship is transiting the Strait of Hormuz when it detects several high speed surface craft inbound...”
- Who is doing which presentation? A best practice is to have an expert from the design team in the room to present and quickly answer SME questions. For example, when assessing the location of the ship’s gun mounts, have a topside design team member who understands the design requirements, the guns’ placements, and the technical details of those guns, do the presentation. If they cannot be in the room, at least have them on a phone line or video teleconference to avoid the need for time-consuming post-test follow up requests for information.

When reviewing these presentations before the test, give the program enough time to refine them based on OTD feedback, prior to the test event.

Avoid redundancy in the presentations. It is better to get one risk assessment on a specific design aspect than to present that information several times over several days, which is liable to happen if you have measures that are mapped to more than one COI. While it can be hard to eliminate all redundant information, look for ways to efficiently use SME time. A bored SME can skew test data, or worse, walk out of the test event!

4. Initial Brief

The first hour of the first day of the test will set the tone for the remainder of the event. The OTD must determine how best to use that hour. Some considerations are:

- Welcome all the participants and thank them for their time.
- Introduce them to “why” they are needed and “what” they will be doing.
- Have the senior Program Office representative and the senior OPTEVFOR representative give short remarks.
 - You cannot overemphasize the appreciation and “why you are here” aspects!
- If you have a Resource Sponsor representative present, pre-determine if they would like to speak briefly.
- Introduce the audience to OT – what is it? How does it apply to this test? How will the results be conveyed and to whom?
- Introduce administrative topics such as security requirements, restroom locations, storage for phones and computers, emergency egress and mustering, coffee mess and refreshments, and where to eat lunch.
- Provide one or more emergency points of contact.
- Provide an overall introduction to the SUT. What is it designed to do? What is the CONOPS? Where will the SUT operate? The program likely has this as a “canned” presentation for VIPs and it could be leveraged.
- Walk through the “Battle Rhythm” of the test. Consider a short presentation and SME comment walkthrough demonstration.
- Orient the SMEs to how to record their responses.
- If small group breakout sessions are planned, provide their location and introduce the Operational Test Team (OTT) leaders for those small groups.
- Stress to the SMEs that this is a risk assessment to mission capability, not a check on the approved requirements.
- Ask the SMEs to separate their personal wishes for “more” or “better” from their assessment of the capability risks. For example, while the BMC might think it would be nice if the ship had 4 boats, the issue at hand is “can it perform the mission with the 3 boats in the ship’s design?”

5. Test Conduct

The OTT must manage the test efficiently. Best practices from recent tests are:

- Keep it manageable: 50 minutes of presentation and SME assessment followed by a 10-minute break.
- The OTD should avoid leading any specific group discussions, but remain available to coordinate requests for information, solve problems, and manage the overall test conduct.
- Break the larger SME group into smaller focus groups by specialty, for example one group for aviators and one for engineers.
- Have two OTT members per group (one to lead discussion, one to record SME responses).
- Assess risks to Effectiveness tasks before assessing risk to Suitability, which gives the SMEs more time to think in a mission context and to understand the SUT.
- Review any previously reported risks, for example from an EOA, to have the SMEs assess if the risk remains, or has been mitigated, or has been retired.

- Have local copies of design documents available for small groups to refer to when they ask questions like “Can we look at that boat deck design again?”
- If a participant does not want to assess a risk because they have no knowledge in that area, tell them to mark “not a SME” for that area. Don’t mark “Not Assessed” because that can be confused with “not enough information was provided.”
- When using a risk matrix to guide assessment, be careful of “group think” by voting with raised hands. Ask each SME to record their vote individually.
- If SMEs get sidetracked onto desired capabilities vice required capabilities, gently refocus them.
- It is important for the OTT to record the “why” of SME responses too. Set aside some time and comment space for freeform text opinions. Have the small group facilitators ask “why” a lot.
- Don’t forget to give the SMEs a good lunch break!
- At the end of the day, thank them again for their help and preview the schedule for tomorrow.

After the day’s presentations have been completed, and the SMEs have been dismissed, gather the OTT to review the day with specific emphasis on:

- Newly discovered limitations to test
- Requests for Information from the program office or other experts
- Proposed Risk Sheets
- Test conduct lessons learned
- Plan for the next day
- Timeline to complete the testing

The OTD can then draft the Daily SITREP to OPTEVFOR leadership.