

Glossary

Acquisition Category (ACAT). Categories established to facilitate decentralized decisionmaking and execution and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority, and applicable procedures.

Acquisition Program Baseline. The PM initially develops the acquisition program baseline as a concept baseline for the Milestone A (MS-A) decision point. A development baseline and a production baseline are prepared for MSs -B and -C. These baselines capture the key parameters that define the system.

Advanced Concept Technology Demonstration (ACTD). An ACTD is an integrating effort to assemble and demonstrate a significant new military capability, based on maturing advanced technologies, in a realistic environment, to clearly establish military utility.

Advisory and Assistance Services. Technical support provided under contract by nongovernmental sources, with outputs that take the form of information, advice, opinions, alternatives, analyses, evaluations, recommendations, and training.

Analytical Support. Support provided via military or civilian analysts, Navy laboratory or defense contractors to assist force personnel in data collection, reduction, and analysis in support of OT&E.

Analysis of Alternatives (AOA). The evaluation of the performance, operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, and is normally conducted during the concept refinement phase to refine the system concept contained in the ICD.

Application Software. Consists of the computer program, firmware, and associated data that implement the operational capabilities required for tactical weapon system employment; e.g., target tracking, navigation, avionics programs, and BIT. A software change required because of changed system performance requirements or new or redesigned hardware shall be termed application vice support software.

Approval for Full Production (AFP). The decision for full production of a system. Normally occurs at the final MS-C.

Approval for Limited Production (ALP). The decision to produce a limited number of systems for use as additional test articles.

Attribute. A quantitative or qualitative characteristic of an element or its actions. For purposes of this discussion, "element," refers to the system. Attributes may be either quantitative or qualitative in nature.

Availability. A measure of the degree to which an item is in an operable and committable state at the start of a mission when the mission is called for at an unknown (random) time. In OT&E, Ao is the usual measure. (See Operational Availability.)

Board of Inspection and Survey (INSURV) Responsibilities. INSURV is tasked with certain responsibilities relating to RDT&E and the acquisition process. When tasked by CNO,

PRESINSURV will submit an individual technical assessment of readiness for OT&E to CNO and COMOPTEVFOR for all ships, craft, or ship installations at the ACAT I and II levels.

Capability Development Document (CDD). The CDD builds on the ICD and provides the detailed operational performance parameters necessary to design the proposed system. A MS-B decision follows the completion of technology development. An affordability determination results from the process of addressing cost during the requirements process and is included in each CDD using life-cycle cost or, if available, total ownership cost.

Capability Production Document (CPD). The CPD reflects the operational requirements resulting from SDD and details the performance expected of the production system. Software shall have demonstrated the maturity level required in the CPD prior to deploying it to the operational environment. Once the maturity level has been demonstrated, the system or increment is base-lined, and a methodical and synchronized deployment plan is implemented for all applicable locations. OT&E shall determine the operational effectiveness and suitability of a system under realistic operational conditions, including combat; determine if thresholds in the approved CPD and COIs have been satisfied; and assess impacts to combat operations.

Capstone Test and Evaluation Master Plan (TEMP). This a TEMP which addresses the testing and evaluation of a defense system comprised of a collection of "stand-alone" component systems which function collectively to achieve the objectives of the defense system.

Combined Developmental Testing (DT) AND OT. Used to save time and reduce costs; must be configured to meet operational capabilities/functions and developmental test objectives; must be covered by an MOA; and must be followed by an appropriate final period of testing which will emphasize appropriate separate OT before a MS-C decision.

Compatibility. One of the elements of operational suitability. The capability of a system or subsystem to operate in its intended environment without adverse effects to or from other systems. Compatibility includes physical, functional, electrical and electronic, and environmental issues.

Computer Resources. The totality of computer hardware, firmware, software, personnel, documentation, supplies, services, and support services applied to a given effort.

Computer Software (or Software). A combination of associated computer instructions and computer data definitions required to enable the computer hardware to perform computational or control functions.

Computer Software Documentation. Technical data or information, including computer listings and printouts, which documents the requirements, design, or details of computer software; explains the capabilities and limitations of the software; or provides operation instructions for using or supporting computer software during the software's operational life.

Concurrent Testing. A form of combined DT/OT in which events are generally broken into separate DT and OT events. Concurrent testing consists of DT and OT testers on a ship, conducting separate and distinct test scenarios, some for DT, some for OT.

Condition. Variables of the environment that affect the performance of subtasks in the context of the assigned mission. They are categorized by conditions of the physical environment (e.g.,

sea state, terrain, or weather), military environment (e.g., forces assigned, threat, command relationships), and civil environment (e.g., political, cultural, and economic factors).

Contracting Officer Technical Representative (COTR). Personnel nominated by COMOPTEVFOR and appointed in writing by the contracting officer and designated in the contract, who provide technical direction/clarification and guidance with respect to the contract specifications or SOW. The term COR is now used interchangeably with COTR.

Cost and Operational Effectiveness Analysis (COEA). An analysis of the estimated costs and operational effectiveness of alternative materiel systems to meet a mission need and the associated program for acquiring each alternative.

Criteria. The element of a standard that defines acceptable levels of performance.

Critical Intelligence Parameters (CIP). CIPs are a series of threat thresholds established by program developers and managers for the purpose of improving threat support products over the life of the system. Emerging foreign capabilities or reevaluations which cross over these thresholds would critically impact the effectiveness and survivability of the U.S. acquisition program. CIPs are expressed in terms of a potential adversary's quantity, type, force mix, and system capabilities for actual and projected specific threats.

Critical Operational Issues (COI). The critical aspects of a system's operational effectiveness and operational suitability that are intended for resolution during OT&E. They are developed by COMOPTEVFOR, they do not all address CNO-provided minimum acceptable operational performance requirements per se, and they appear in part IV of the TEMP.

Current Threat. The threat which has been fielded or is assessed to be currently available.

Developing Agency (DA). The DA is usually a SYSCOM/PEO. The agency responsible for system design and development, and accomplishment of DT&E to verify attainment of technical performance specifications and objectives.

Defense Acquisition Board (DAB). The senior DoD acquisition review board chaired by the Under Secretary of Defense for Acquisition. The Vice Chairman of the Joint Chiefs of Staff is the Vice-Chair. Other members of the board are the Deputy Under Secretary of Defense for Acquisition, service acquisition executives of the Army, Navy, and Air Force; the Director of Defense Research and Engineering; the Assistant Secretary of Defense for Program Analysis and Evaluation; the Comptroller of the Department of Defense; the Director of Operational Test and Evaluation; the appropriate DAB Chair; and the Defense Acquisition Board Executive Secretary. Other persons may attend at the invitation of the chair. (See DoD Directive 5000.49, Defense Acquisition Board.)

Direct Liaison Authorized (DIRLAUTH). That authority granted by a commander (any level) to a subordinate to directly consult or coordinate an action with a command or agency within or outside of the granting command. DIRLAUTH is more applicable to planning than operations and always carries with it the requirement of keeping the commander granting DIRLAUTH informed. DIRLAUTH is a coordination relationship, not an authority through which command may be exercised.

Director, Operational Test and Evaluation (DOT&E). According to DoD Directive 5000.1, DOT&E is the principle advisor to the Secretary of Defense on DoD OT&E matters.

Discrepancy Reporting. The lead OT&E agency is responsible for ensuring a system is established to track discrepancies and to provide periodic status reports to participating OT&E agencies. Control of promulgation of such reports should be included in an MOA between the participating OT&E agencies. An example of another agency's reporting is the service reports that can be issued by any Air Force organization.

DT Assist. Similar to an early phase of combined DT/OT, but with a predominantly DT flavor. OTDs take an active role in the DT effort.

Developmental Test and Evaluation (DT&E). T&E conducted by the DA to assist in engineering design and development, and to verify attainment of technical performance specifications and objectives.

Datalink Vulnerability Assessment (DVAL). DVAL T&E methodology incorporates the component parts of vulnerability into a four-module approach for the T&E of antijam features of command, control, and communications; reconnaissance and intelligence; and weapons RF data links. The methodology facilitates the determination and quantification of the four components so that a vulnerability assessment that is based on fact and data, instead of assumptions and theory, can be accomplished.

Early Operational Assessment (EOA). An operational assessment (OT-I) conducted prior to, or in support of, MS-B. (See Operational Assessment.)

Evaluation Report. One of the two products of OT&E (the other product is the tactics guide).

Evolutionary Acquisition (EA). EA is an acquisition strategy that applies to advanced technology, electronic, and software-intensive systems; and keys on the dynamics of technology and development and the potential of a system to evolve in incremental steps to a capability beyond the current technological capability (or core system).

Exit Criteria. Program-specific accomplishments that must be satisfactorily demonstrated before an effort or program can progress further in the current acquisition phase or transition to the next acquisition phase. Exit criteria may include such factors as critical test issues, the attainment of projected growth curves and baseline parameters, and the results of risk reduction efforts deemed critical to the decision to proceed further. Exit criteria supplement minimum required accomplishments and are specific to each acquisition phase.

Fleet-Releasable Software. Software for which OT&E results confirm that all significant design problems have been identified, that solutions to these problems are available, and that the software actually tested is effective and suitable for its intended use and meets operational requirements. This term is reserved for use by CNO following successful OT&E.

Fleet Services. These are used to plan and program not only Fleet support, but also financial support, ranges, targets, simulators, and other required support.

Follow-on Operational Test and Evaluation (FOT&E). That test and evaluation that is necessary during and after the production period to refine the estimates made during OT&E to evaluate changes, and to reevaluate the system to ensure that it continues to meet operational needs and retains its effectiveness in a new environment or against a new threat.

Foreign Weapons Evaluation (FWE). FWE evaluates foreign weapons systems, equipment, and technologies that have the potential to satisfy a specific U.S. requirement. FWE applies to any system, subsystem, or component purchased from a friendly or neutral country which is available for procurement by the U.S.

Full Mission Capable (FMC). The percentage of time the test aircraft is capable of performing all its missions as defined in the MESM as supplemented by operational experience.

Full Rate Production Decision (FRPD). The decision to enter into full rate production for the system.

Human Factors. A body of scientific facts about human characteristics. The term covers all biomedical and psychosocial considerations. It includes, but is not limited to, principles and applications in the areas of human engineering, personnel selection, training, life support, job performance aids, and human performance evaluations (DoDINST 5000.2). OT includes examination of those elements of system operation and maintenance which influence the efficiency with which people can use systems to accomplish the operational mission of the system (e.g., arrangement of controls and displays), the work environment (e.g., room layout, noise level, temperature, lighting, etc.), the task (e.g., length and complexity of operating procedures), and personnel (e.g., capabilities of operators and maintainers).

Incremental Development. In this process, a desired capability is identified, an end-state requirement is known, and that requirement is met over time by developing several increments, each dependent on available mature technology.

Information Assurance (IA). Measures that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and nonrepudiation. This includes providing for restoration of information systems by incorporating protection, detection, and reaction capabilities. IA must be addressed for all weapons systems; command, control, communications, computers, intelligence, surveillance, and reconnaissance systems; and information technology programs that depend on external information sources or provide information to other DoD systems.

Informational View. A temporal view block diagram with *conditions, inputs, and outputs* added to it. Inputs are required information or assets to perform a subtask (e.g., subtask of selecting targets to attack requires intelligence data). Outputs are the information or product resulting from the performance of the subtask (e.g., the subtask of selecting targets to attack must yield a target list). Some subtasks provide inputs *to* other subtasks or require inputs *from* other subtasks.

Initial Capabilities Document (ICD). Representatives from multiple DoD communities shall assist in formulating broad, time-phased, operational goals, and describing requisite capabilities in the ICD. Programs that enter the acquisition process at MS-B shall have an ICD that provides the context in which the capability was determined and approved, and a CDD that describes specific program requirements. Projects that undergo a MS-A decision shall have a T&E strategy that primarily addresses M&S, including identifying and managing the associated risk, and that evaluates system concepts against mission requirements. Pre-MS-A projects shall rely on the ICD as the basis for the evaluation strategy.

Initial Operational Capability (IOC). The first attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics, and which is manned or operated by a trained, equipped, and supported military unit or force.

Initial Operational Test and Evaluation (IOT&E). All OT&E conducted on production or production-representative articles, to support the decision to proceed beyond low-rate initial production. It is conducted to provide a valid estimate of expected system operational effectiveness and operational suitability.

Intelligence Production Requirement (IPR). An IPR may be initiated by a user whenever there is a perceived data gap. It may cover current, midterm, or long range intelligence requirements which cannot be wholly satisfied by the resources of the requester.

Integrated Program Summary (IPS). A DoD component document prepared and submitted to the MDA in support of MS-A, -B, -C, and -D reviews. It concisely highlights the status of a program and its readiness to proceed into the next phase of the acquisition cycle.

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

Interoperability. The capability of systems, units, or forces to provide services to or accept services from other systems, units, or forces, and to use the services exchanged to operate effectively (DoDINST 5000.2). Effective exchange of information is emphasized. For example, a radar is interoperable with a gun system if the radar causes the gun to point at the target; the Carrier Aircraft Inertial Navigation System must be interoperable with the Ship's Inertial Navigation System for initial alignment; a fuze must be interoperable with the warhead in order for the firing signal to get through.

IT Integration. IT blends or combines contractor, developmental, and operational testing to form a cohesive testing continuum. This integration cannot occur unless the participants (CT, DT, and OT) have determined their entering requirements for adequate testing of the system under evaluation. IT does not remove or combine any of OPTEVFOR's current or future requirements for reporting based on a separate (OPTEVFOR) analysis of the shared test information produced by the IT effort.

Joint Acquisition Program. A directed joint effort for the development and procurement of systems, subsystems, equipment, software, or munitions as well as supporting equipment or systems, with the goal of providing a new or improved capability for a validated joint need. (DAU Glossary)

Joint Interoperability. Joint Interoperability is an E-test designed to examine the use of systems which must exchange information or services with non-Navy systems and platforms; that is, Army or Air Force and in some cases, Marines or Coast Guard. For instance, in designing an SP test for a submarine antenna, the capability of the antenna to assist the platform in communicating with Army helicopters, USAF aircraft and satellites, and a Marine CP would have to be examined.

Joint Test and Evaluation (JT&E) Program. An OSD program that is structured to evaluate or provide information on system performance, technical concepts, system requirements or

improvements, and system interoperability; to improve or develop test methodologies; or for force structure planning, doctrine, or procedures.

Land-Based Test Sites (LBTS). An LBTS is a facility that duplicates, simulates, or stimulates the employment of a system's planned operational installation and use for the purpose of conducting DT.

Level of Repair Analysis (LORA). The technique used to determine whether an item should be repaired and at what maintenance level; i.e., organizational, intermediate, or depot.

Live Fire Test and Evaluation (LFT&E). LFT is conducted to provide a timely and thorough assessment of the vulnerability and lethality of a system as it progresses through its development and subsequent production phases. The primary emphasis of LFT is on realistic testing as a source of personnel casualty, vulnerability, and lethality information, taking into account the susceptibility to attack and combat performance of the system. LFT will include, when feasible, the firing of threat munitions (or surrogates) at operational, combat-loaded U.S. weapon systems to test their vulnerability; and/or the firing of U.S. munitions or missiles against operational, combat-loaded threat targets (or surrogates) to test the lethality of those munitions or missiles.

Logistic Supportability. The degree to which the planned logistics (including test equipment, spares and repair parts, technical data, support facilities, and training) and manpower meet system availability and wartime usage requirements.

Logistic Support Analysis (LSA). The selective application of scientific and engineering efforts undertaken during the acquisition process, as part of the system's engineering and design process, to assist in complying with supportability and other logistic support areas.

Low Rate Initial Production (LRIP). The production of a system in limited quantity to provide articles for additional OT&E to establish an initial production base, and to permit an orderly increase in the production rate sufficient to lead to full-rate production upon successful completion of OT&E.

Maintainability. The capability of an item to be retained in or restored to specified conditions when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair. MTFL, MCMTOMF, and MR are frequently calculated in maintainability evaluations.

Maintenance Deficiency Report (MDR). Project management responsibility turnover occurs in the Air Force when the logistics command accepts management of a program. RDT&E is then normally terminated and service reports are called MDRs.

Major Deficiency. An operational mission failure or software fault (precludes successful completion of a mission). If occurring in sufficient numbers during testing, can lead to a partially resolved or UNSAT resolution of a COI. On the other hand, only one major deficiency occurring may not lower the result to below a stated threshold, meaning that the COI is still resolved as SAT.

Material Support Date (MSD). The date when all necessary supply support of the system or equipment is furnished. Supply support includes allowance quantities stocked in the supply system or furnished directly to the end-user.

Matrix. The arrangement of specific elements into rows and columns to indicate interdependence or correlation.

Mean Corrective Maintenance Time for Operational Mission Failures (MCMTOMF).

Normally computed as part of Test S-2, MCMTOMF is the average time required to perform active corrective maintenance. Corrective maintenance is the time during which one or more personnel are repairing an operational mission failure and includes: preparation, fault location, part procurement from local (onboard) sources, fault correction, adjustment and calibration, and follow-up checkout times. It excludes off-board logistic delay time.

Mean Time to Fault Locate (MTFL). The total fault location time divided by the number of critical failures. Frequently computed as part of Test S-2, Maintainability.

Measure. The element of a standard that provides the basis for describing varying levels of task performance.

Measure of Effectiveness (MOE). Addresses the quality of the operational picture provided to operators of warfare systems. These measures characterize the operational picture's completeness, clarity, correctness, and commonality. Tools used to measure results achieved in the overall mission and execution of assigned tasks. MOEs are a prerequisite to the performance of combat assessment.

Measure of Suitability (MOS). Expressions of the system's functional and interface design as they relate to the compatibility with other elements of the system, job, organization, other systems, and the working environment.

Milestone A Decision. The decision to establish a new acquisition program and establish a concept baseline containing initial program cost, schedule, and program objectives.

Milestone B Decision. The decision to begin engineering and manufacturing development of a concept.

Milestone C Decision. The decision to produce a system.

Minimum Acceptable Operational Performance Requirement. The value for a particular parameter that is required to provide a system capability that will satisfy the validated mission need. Also known as the performance threshold. This is used in programs dating prior to March 1996. These programs may or may not change terminology during TEMP updates.

Minor Failure. One that affects system performance, but does not impact the ability to perform the mission. This definition will be included in aircraft program documents where minor failures will be used in calculations such as MR or MFHBF (for older programs that still use this parameter).

Minor Deficiency. A deficiency that affects system performance, but does not impact the ability to perform the mission. Usually requires only a minor workaround to continue testing.

Mission. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore.

Mission Analysis. The mission analysis is a combined effort between OPTEVFOR and the program representatives (T&E IPT), and should include other participants such as the Fleet Forces Command (N8) representative, and operational user representatives. Other SMEs may be included to ensure this evolution is completed correctly. These SMEs might include center of excellence representatives.

Mission-Based Test Design (MBTD). MBTD is COMOPTEVFOR's primary test planning methodology. The foundation of MBTD is the development of COIs and test vignettes based on tasks the warfighter will execute using the system under test. Test scope will be based upon conditions that impact the warfighter's execution of their tasks.

Mission Capability by Primary Mission Area (MCMA). The percentage of time the test aircraft is capable of performing a specified mission.

Mission Need Statement (MNS). A statement of operational capability required to perform an assigned mission or to correct a deficiency in existing capability to perform the mission.

Mission Reliability. See Reliability.

Model. A model is a representation of an actual or conceptual system that involves mathematics, logical expressions, or computer simulations that can be used to predict how the system might perform or survive under various conditions or in a range of hostile environments.

Modeling and Simulation (M&S). DoD directives encourage the use of M&S to assist in projecting operational effectiveness and operational suitability prior to MS-B, but limit its use in subsequent OT&E to that of supplementing OT&E test data. Because of the increased emphasis on the use of simulation in early OT&E, the OTD must give careful consideration to requirements for the use of threat simulation.

Multiservice OT&E. OT&E conducted jointly by two or more services for systems to be acquired by more than one service, or for a service's systems which have interfaces with equipment of another service.

NATO Comparative Test Program (CTP). NATO CTPs evaluate foreign weapons systems, equipment, and technologies that have the potential to satisfy a specific U.S. requirement. NATO CTP applies only to items of NATO origin.

Navy Support Date (NSD). The date the Navy is responsible for providing material support for retail outfitting and wholesale requirements from the supply system. Support elements could include allowance quantities in the supply system, training, technical manuals, and other support documents such as allowance parts lists and preliminary allowance parts lists.

Nondevelopmental Item (NDI). Any item of supply that is available in the commercial marketplace:

- Any previously developed item of supply that is in use by a department or agency of the United States, a state or local government, or a foreign government with which the United States has a mutual defense cooperation agreement
- Any item of supply described in the above, that requires only minor modification in order to meet the requirements of the procuring agency

- Any item of supply that is currently being produced that does not meet the requirement of one of the above definitions, solely because the item is not yet in use or is not yet available in the commercial marketplace

Notice of Intent (NOI). The primary purpose of an NOI is to reserve a submerged operating area and establish procedures which will minimize mutual interference between submerged submarines, and between submarines and other operations such as surface ships using variable depth sonar or dropping of explosive ordnance.

Observation of Operational Capability (OOC). Occasionally, due to acquisition or programmatic issues, systems or equipment enter the Fleet with no previous OT&E. In these cases, COMOPTEVFOR may conduct an OOC. This is not a phase of formal OT, and, therefore, cannot be used to support an acquisition decision. This is an accounting of the capability of a system as gauged against either the previous (i.e., replaced system) capability, or the system's ORD (or CDD).

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

Operational Availability (Ao). (See Availability for basic definition.) Ao is computed and reported as follows:

- For continuous-use system, operational availability shall be designated Ao and shall be determined as the ratio of system "uptime" to system "uptime plus downtime."
- For "on-demand" systems, operational availability shall be designated Aod and shall be determined as the ratio of the "number of times the system was available to perform as required" to the "total number of times its performance was required." (Note: "Total number of times its performance was required" shall be the number of times attempted and the number of times it was operationally demanded, but not attempted because the system was known to be inoperable.)

Operational Consideration (OPCON)

- To document evaluation considerations which apply operational reasoning to test results to substantiate conclusions or recommendations (or both) that are not directly derivable from the results
- To document tactical considerations which inform operational commanders of significant aspects (pro and con) of system employment, or make clear what special measures would be required to make the system more efficient in battle

Operational Effectiveness. The overall degree of mission accomplishment of a system when used by representative personnel in the environment planned, or expected (e.g., natural, electronic, threat etc.), for operational employment of the system, considering organization, doctrine, tactics, survivability, vulnerability, and threat (including countermeasures, initial nuclear weapons effects, and NBCC threats).

Operational Evaluation (OPEVAL). The last phase of OT&E prior to the full rate production decision. Commonly used term for IOT&E.

Operational Mission Failure. One which precludes successful completion of a mission, and must be specifically defined for each system.

Operational Mission Software Fault. One which precludes successful completion of a mission, and must be specifically defined for each system.

Operational Requirements Document (ORD). Although COMOPTVFOR is not officially part of the formal ORD process, the OPNAV resource sponsor will usually provide the draft ORD to COMOPTVFOR for review and comment. In conducting the review of the document, concentrate on the acquisition strategy (program structure). If a requirement appears too difficult or too simple, or if it is not testable, this is the opportunity to say so. Comments should be made if the list of performance parameters is incomplete.

Operational Suitability. The degree to which a system can be placed satisfactorily in field use with consideration given to reliability, maintainability, availability, logistic supportability, compatibility, interoperability, training, human factors, safety, documentation, transportability, wartime usage rates, manning requirements, and natural and environmental effects and impacts.

Operational Test and Evaluation (OT&E). The purpose of OT&E is to allow an accurate evaluation of the true operational effectiveness and operational suitability of the weapon system in actual Fleet use and combat employment.

Operations Security (OPSEC). OPSEC, as it relates to COMOPTVFOR testing, may be defined as the identification and protection of a broad spectrum of classified and open-source information that collectively reveals current and future U.S. military capabilities, plans, and operational procedures. In this respect, it encompasses and relates to other security programs such as SIGSEC, physical security, automated data processing, and operational deception.

OT Framework. The OT framework is the primary document for defining adequate OT when using the MBTD, and for integrating the OT requirements with DT and CT requirements to form an IT matrix. It defines the OT objectives and the requirements for resolution of each COI, as well as the OTD's minimum IOT&E requirements.

OTD Journal. The OTD journal records, for possible later use, data that the OTD hadn't considered when developing the data or survey sheets, and may be of significance in the program. While each OTD must use his own judgment when deciding what is significant, it is better to record too much data rather than too little. And, it is better to record it as soon as an event occurs, rather than to wait until later and risk forgetting.

Performance-Based Contracting. A type of contract structuring all aspects of an acquisition around the purpose of the work to be performed with the contract requirements set forth in clear, specific, and objective terms with measurable outcomes, as opposed to either the manner by which the work is to be performed or broad and imprecise statements of work.

Personal Services Contracting. A type of contract that, by its express terms or as administered, makes the contractor personnel appear to be, in effect, Government employees. Personal services contracts are prohibited unless specifically authorized by statute.

Production Acceptance Test and Evaluation (PAT&E). Testing conducted on production items to ensure systems meet contract specifications and requirements.

Program Element Descriptive Summary (PEDS). These documents are prepared annually by the DA. COMOPTEVFOR reviews drafts of these documents and provides the OT&E write-ups in their T&E sections. Guidance is set forth by the Project/Policy Manager (Code 01B) as each annual cycle begins.

Program Executive Officer (PEO). A military or civilian official who has primary responsibility for directing several ACAT I programs and for assigned ACAT II, III, and IV programs. A PEO has no other command or staff responsibilities within the component, and only reports to and receives guidance and direction from the DoD Component Acquisition Executive.

Program Manager (PM). A military or civilian official who is responsible for managing an acquisition program.

Projected Threat. A best estimate based on historical trends data, evidence of continuing research and development, postulated military requirements, technological capabilities, and the best intelligence available. This threat consists of the weapon systems and characteristics that an adversary can be expected to develop and deploy during the specified period.

Provisioning Requirements Statement (PRS). The PRS (DD Form 1949-2) is a document that gives the contractor specific guidance on the exact provisioning information required by the government. It provides the methods to be used in the generation of provisioning data, and the range and depth of required data.

Provisioning Technical Documentation (PTD). The document furnished by the contractor for identification, determination of repair parts requirements, cataloging, and contractual formalization of items to be procured through the provisioning process. The PTD includes, but should not be limited to, provisioning lists, drawings, item descriptions, and cards and/or magnetic tapes.

Quick-Look Report. Directed only by CNO. An informal, usually abbreviated, evaluation report published by COMOPTEVFOR; always superseded by a formal evaluation report.

Quick Reaction Assessment (QRA) (U.S. Navy). Used when operational necessity dictates deploying a rapid capability in the Fleet. A QRA is a quick assessment that examines specific operational considerations and capabilities of a system. A QRA will not be used to resolve COIs.

Risk Assessment Level of Test (RALOT). A tool to be used by the OTA in determining the scope of the OT required to support fielding decisions for existing systems (post IOT&E) that have been modified.

Research, Development, Test, and Evaluation (RDT&E). See NAVSO P-2457 (RDT&E Management Guide).

Research Laboratories. Laboratories available to provide analytical support to COMOPTEVFOR in the OT&E of assigned CNO projects.

Reliability. The duration or probability of failure-free performance under stated conditions. In OT&E, reliability is usually reported in one of two ways:

- Mission Reliability (R). For equipment operated only during a relatively short duration mission (as opposed to equipment operated more or less continuously), the probability of completing the mission without an operational mission failure.
- MTBOMF. Mean time between operational mission failures. For more or less continuously operated equipment or systems. MTBOMF measures reliability as it relates to the overall mission of the equipment or system being tested and is the total operating time divided by the number of operational mission failures. MTBOMF is the figure used in the calculation of overall mission Reliability (R). MTBOMF is sometimes modified to Mean Flight Hours Between Operational Mission Failures (MFHBOMF).

SECNAVINST 5000.2C. The fundamental Navy instruction on T&E.

Self-Defense Test Ship (SDTS). Realistic OT for softkill and short range hardkill self-defense weapon systems is often restricted by safety considerations that prohibit threat-representative target presentations for manned ships. For this reason, the former USS PAUL F FOSTER (DD 964) has been configured as an unmanned ship outfitted with current softkill and hardkill self-defense weapon systems for use by the DT and OT communities.

Simulation. A simulation is a method for implementing a model. It is the process of conducting experiments with a model for the purpose of understanding the behavior of the system modeled under selected conditions or of evaluating various strategies for the operation of the system within the limits imposed by developmental or operational criteria. Simulation may include the use of analog or digital devices, laboratory models, or test-bed sites. Simulations are usually programmed for solution on a computer; however, in the broadest sense, military exercises and war games are also simulations.

Simulator. A generic term used to describe a family of equipment used to represent threat weapon systems in DT, OT, and training. A threat simulator has one or more characteristics which, when detected by human senses or manmade sensors, provide the appearance of an actual threat weapon system with a prescribed degree of fidelity.

Software Qualification Test (SQT). Post-MS-C software testing will be conducted by COMOPTEVFOR as SQT and is solely intended for a Fleet release recommendation. SQT applies to software modifications of limited scope, such as aircraft and weapons systems Operational Flight Programs (OFP) and other systems in which software provides a similar function.

Software Test. Software will be operationally tested in the system in which the application is installed or implemented when fielded. The software to be used for IOT&E and FOT&E will be the software intended for Fleet use.

Software Upgrade (U.S. Navy). Navy software upgrades (releases) fall into three categories: **Major** -- adds new functions or warfare capabilities, interfaces with a different weapon system, redesigns the software architecture, or rewrites the software in a different language (requires OT by OPTEVFOR); **Minor** -- changes that do not add any significant functions or interfaces as determined by CNO (OT by OPTEVFOR upon CNO approval); **Maintenance** -- releases that are fixes to minor problems (no testing by OPTEVFOR).

Spiral Development. In this process, a desired capability is identified, but the end-state requirements are not known at program initiation.

Standard. The minimum acceptable proficiency required in the performance of a particular task under a specified set of conditions. Defined by the ORD/CD or assigned by OPTEVFOR standards, and consists of measures and criteria.

Standardized S-Tests. In OPTEVFOR test plans, the following standardized S-tests address the major elements of operational suitability. (Others may be added, as appropriate.)

- Test S-1, Reliability
- Test S-2, Maintainability
- Test S-3, Availability
- Test S-4, Logistic Supportability
- Test S-5, Compatibility
- Test S-6, Interoperability
- Test S-7, Training
- Test S-8, Human Factors
- Test S-9, Safety
- Test S-10, Documentation

Subtask. The further breakdown of a task into the discrete events or actions required to complete the task.

Support Material List (SML). A list of spares and repair parts required to support a system or equipment based on maintenance and phased support plans for a specified period of time, dollar amount, and degree of supply effectiveness.

Support Software. The system compilers, assemblers, utility packages, diagnostic routines, integration test programs, simulations, quality assurance programs, and other software required or used in the development and support of weapon system software.

Survivability. The capability of a system to avoid or withstand manmade, hostile environments without suffering an abortive impairment of its capability to accomplish its designated mission.

Susceptibility. The degree to which a device, equipment, or weapons system is open to effective attack due to one or more inherent weaknesses. (Susceptibility is a function of operational tactics, countermeasures, probability of the enemy fielding a threat, etc.) Susceptibility is considered a subset of survivability.

Synergy. Interaction of discrete agents or conditions such that the total effect is greater than the sum of the individual effects.

System Service Reports. Service reports are issued when a system in RDT&E has a major or minor failure. They may be issued during any phase of T&E or between scheduled phases of T&E.

System Threat Assessment. Describes the threat to be countered and the projected threat environment. The threat information should reference DIA or Service Technical Intelligence Center-approved documents.

System Threat Assessment Report (STAR). The STAR is the basic authoritative threat assessment tailored for and focused on a particular U.S. defense acquisition program. Included in the STAR is an assessment of those projected capabilities -- doctrine, strategy, tactics, organization, equipment, and military forces -- that a potential enemy could use to defeat or degrade the U.S. system during its employment. The STAR is initially prepared at MS-A for all ACAT I programs, and updated at MS-B, -C, and -D. A component-prepared system threat assessment is required at ACAT II, III, and IV programs.

Test and Evaluation Identification Number (TEIN). When a program becomes a program of record, the CNO will assign a TEIN. If the program is internal to COMOPTEVFOR the TEIN will start with 3000.

Tactical Development and Evaluation (TAC D&E). A program designed to improve tactical readiness through development of tactical doctrine for the effective employment of current combat systems or systems approaching IOC.

Task. A discrete event or action, not specific to a single unit, weapon system, or individual, that enables a mission or function to be accomplished by individuals and/or organizations.

Temporal View. A block diagram that depicts the steps of the task process *in order of occurrence*. Temporal interactions refer to the *sequencing* of subtasks. That is, one subtask must be completed before another one can begin (prerequisite or successor); one subtask might begin at the same time as another one (concurrent beginning); or one subtask might have to be completed at the same time as another (concurrent ending).

Test and Evaluation Coordinating Group (TECG). A TECG will convene when T&E issues arise that cannot be resolved between the applicable commands or when extensive T&E coordination is required. A TECG may also be used to implement urgent required changes to TEMPs. In this case, either a page change will be issued or the formal report of the TECG will be attached to the TEMP as an annex until the next required update or revision.

Test and Evaluation Master Plan. The controlling document for all T&E. The basic purpose of the TEMP is to combine the DA's DT&E plans and COMOPTEVFOR's OT&E plans into one integrated master plan approved by the CNO or higher authority (except ACAT IVT TEMPs which are approved by the PEO/DA and COMOPTEVFOR). Because the PEO/DA and COMOPTEVFOR have independent authority, within their respective areas, to determine program test periods and test resources, it is imperative that these independent efforts be integrated into a single program structure. See SECNAVINST 5000.2C, DoD Directive 5000.1, and DoD Regulation 5000.2-R for format and content.

Test Reporting. For major programs, the lead service will prepare and coordinate the single (interim or final) report reflecting the system's operational effectiveness and operational suitability for each service. The participating services' independent evaluation reports will be appended to final reports.

Threat. The sum of the potential strengths, capabilities, and intentions of any enemy which can limit or negate mission accomplishment or reduce force, system, or equipment effectiveness.

Threat Assessment. The provisions of intelligence assessment of the threat in the appropriate context and detail necessary to support plans, programs, or actions. Threat support is normally provided in the form of threat or capabilities publications, generic threat assessments, and

specific threat statements, all of which emphasize system projections and threat forecasts. Threat support also includes operational intelligence on foreign naval targets and force employment.

Threat Support. The provisions of intelligence assessments of the threat in the appropriate context and detail necessary to support plans, programs, or actions. Threat support is normally provided in the form of threat or capabilities publications, generic threat assessments, and specific threat statements, all of which emphasize system projections and threat forecasts. Threat support also includes operational intelligence on foreign naval targets and force employment.

Threat Validation. The evaluation of, and concurrence with, threat documentation. DIA evaluation of service-produced threats stresses the appropriateness and completeness of the intelligence positions and the logic of extrapolations from existing intelligence.

Threshold. The value of a baseline parameter that represents the minimum acceptable value which, in the user's judgment, is necessary to satisfy the need. If threshold values are not achieved, program performance is seriously degraded, the program may be too costly, or the program may no longer be timely.

Top Level Requirements (TLR) and Top Level Specifications (TLS). For ship development and ship acquisition programs, TLRs and TLSs are prepared after the ORD or MNS. This additional set of documents is necessary because of the length and complexity of the ship design process.

Universal Navy Task List (UNTL). A list of Navy tasks considered essential to the accomplishment of an assigned or anticipated mission. OPNAV Instruction 3500.38A applies.

Validated Software. Validated software is application software with a technical evaluation completed by the procuring activity to determine whether the application software is functioning in a technically acceptable manner, whether it meets design and technical performance specifications, and whether it is technically suitable for operational evaluation.

Verification of Correction of Deficiencies (VCD) (U.S. Navy). VCDs are used to support acquisition decisions for limited or full rate production. Evaluation of corrections to specific deficiencies cited in a previous OT&E report will apply to only those COIs that have been corrected, and the evaluation will not require end-to-end testing of the complete system.

Vignette. A convenient or logical grouping of a task or several subtasks to allow testing and data collection for several standards. Vignettes are conducted under the varying conditions determined to have impact on the associated subtask performance.

Vulnerability. The characteristics of a system that causes it to suffer a degradation (loss or reduction of capability to perform the designated mission) as a result of having been subjected to a certain (defined) level of effects in an unnatural (man made) hostile environment. Vulnerability is considered a subset of survivability.

Weapon System Selection and Planning. This is the entire weapon system acquisition process, including planning and study and acquisition review, as well as research, development, test, and evaluation. It involves the CNO, the systems' commands and research and development centers, COMOPTEVFOR, and senior review authorities (e.g., SECNAV).