



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
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OPNAV INSTRUCTION 1500.76C

From: Chief of Naval Operations

Subj: NAVAL TRAINING SYSTEMS REQUIREMENTS, ACQUISITION, AND
MANAGEMENT

Ref: (a) SECNAVINST 5000.2E
(b) CJCSINST 3170.01H
(c) JCIDS Manual of 19 January 2012
(d) OPNAVINST 5310.23
(e) OPNAVINST 1000.16K
(f) OPNAVINST 1210.2B
(g) OPNAVINST 1223.1C
(h) OPNAVINST 11102.2
(i) OPNAVINST 11010.20G
(j) NAVSO P-1000 of 12 Dec 2002
(k) SECNAVINST 5000.36A
(l) DoD Directive 1322.18 of 13 January 2009
(m) DoD Directive 5000.59 of 8 August 2007
(n) E.O. 12344
(o) OPNAVINST 3500.34F
(p) SECNAVINST 5400.15C
(q) OPNAVINST 4000.57G
(r) COMUSFLTFORCOMINST/COMPACFLTINST 4720.3B (NOTAL)
(s) OPNAVINST 1500.27G
(t) DoD Instruction 1322.26 of 16 Jun 2006
(u) NAVEDTRA 130-140 Series Manuals
(v) OPNAVINST 1551.11B
(w) COMUSFLTFORCOMINST/COMPACFLTINST 3501.3 (NOTAL)

Encl: (1) Front-End Analysis (FEA)
(2) Training Requirements Planning
(3) Navy Training Systems Plan Format
(4) Training Transfer Agreement
(5) Training Transfer Agreement Template
(6) Glossary
(7) Acronyms

1. Purpose. To establish policy for planning, determining, and documenting manpower, personnel, and training (MPT) requirements

for Navy and integrated Navy and Marine Corps new and modernized acquisition systems across the entire continuum of Navy training (individual, collective, unit, staff, joint, fleet).

2. Cancellation. OPNAVINST 1500.76B, OPNAV P-751-1-9-97, OPNAV P-751-2-9-97, and OPNAV P-751-3-9-97.

3. Scope. This instruction applies to all Navy and integrated Navy and Marine Corps acquisition category (ACAT) I through IV programs, non-ACAT programs of record, modernizations, and rapid acquisition programs such as abbreviated acquisition programs, non-developmental items, commercial off-the-shelf (COTS), rapid deployment capability and urgent need programs. Compliance with this policy will ensure MPT requirements traceability in support of new and or modernized naval capabilities. That traceability will be articulated in the form of a Navy training systems plan (NTSP), the resultant training transfer agreement, training effectiveness evaluation plan (TEEP) and military characteristics (MC) documents.

4. Background

a. This instruction shall be used to document officer, enlisted, and civilian manpower and personnel requirements, and to plan training in support of Navy and integrated Navy and Marine Corps new or modernized programs. NTSPs are resultant planning deliverables developed during the Department of Defense (DoD) acquisition process. Joint Capabilities Integration and Development System (JCIDS) documents establish specific required system, operator, maintainer, and employment capabilities, which include key performance parameters (KPP) and key system attributes, and establish specific required system operator, maintainer, user, administrator, officer and employment capabilities. Officer, enlisted, and civilian manpower and training requirements are documented in the NTSP.

b. NTSPs are Navy and integrated Navy and Marine Corps acquisition documents which communicate MPT gaps and needs in support of new acquisition and or modernization programs. To ensure adequate planning, programming, budgeting and execution (PPBE) of sustainment training throughout the Future Years Defense Program (FYDP), resource sponsors are required to obtain concurrence from Deputy Chief of Naval Operations for Manpower Personnel Training and Education (DCNO) (N1) prior to approving

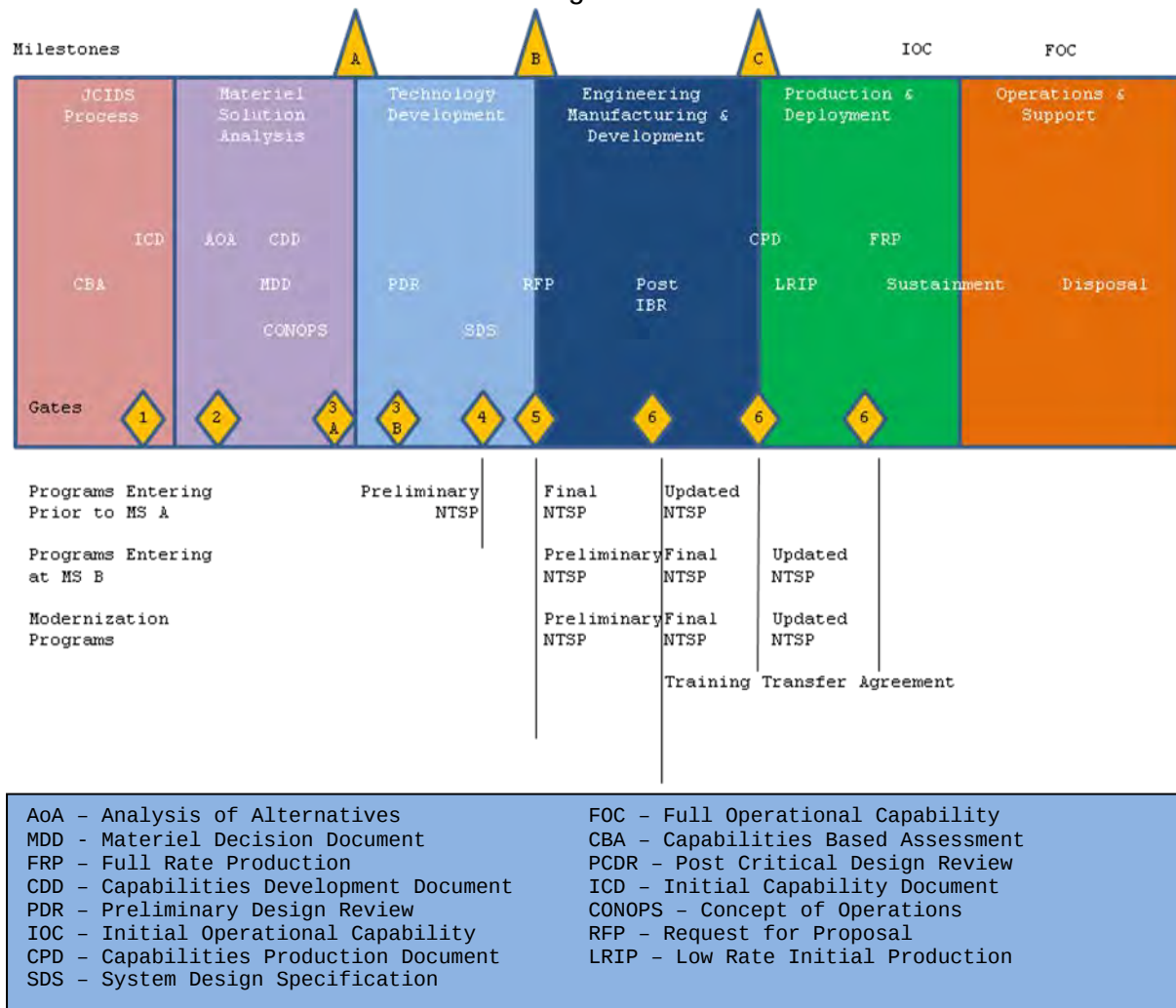
a final or updated NTSP. When a final or updated NTSP is approved by the resource sponsor, the NTSP shall be the official record of the training planning process that facilitates the enterprise(s) definition of the system's MPT requirements.

c. Training transfer agreements ensure all training resources and capabilities are in place to support execution of the transfer of responsibility for a complete training system from the training support agency to the training agency (TA) at ready for training (RFT) date. An initial training transfer agreement shall be developed and approved prior to milestone (MS) C for all ACAT I and ACAT II programs. Resource sponsors will identify necessary resources to ensure successful sustainment of items identified in the training transfer agreement based on the agreed RFT date. Once the training transfer agreement is approved by the resource sponsor, the training transfer agreement shall be used as the official record of the transition in addition to the training system installation plan for new installations and those which have major facility impacts and other approved training system change instruments.

5. Policy

a. Figure 1 details the timeline for NTSP development and approval for all ACAT I and selected ACAT II programs as determined by the Chairman, Joint Chiefs of Staff, Secretary of the Navy (SECNAV) or Assistant Secretary of the Navy (Research, Development and Acquisition), aligned within the DoD acquisition process and the SECNAV gated review process. Programs designated with a training KPP are required to produce a preliminary NTSP at MS A. This planning will characterize, focus, and enable the integration of technology ensuring the capability solution is usable to its full potential by the warfighter. All other ACAT and non-ACAT programs (with the exception of rapid acquisition programs such as non-developmental item, COTS, rapid deployment capability, abbreviated acquisition program, and urgent need programs) shall produce a preliminary NTSP at MS B, an approved final NTSP at post initial baseline review (IBR) and an updated NTSP (as necessary) at MS C.

Figure 1



b. A preliminary NTSP (part I, appendix A (plan of action and milestones (POA&M), and appendix B (points of contact) shall be completed and posted to an applicable NTSP Web site (e.g., Navy Knowledge Online (NKO), Human Analysis and Requirements Planning System (HARPS), Naval Sea Systems Command (NAVSEASYS COM) Training Acquisition (SEATRACQ), Aviation Technical Training (AVTECHTRA)) by gate 4 for all ACAT I and selected ACAT II programs. All other programs refer to subparagraph 5a.

c. A final NTSP (parts I through VII) shall be approved and posted to an applicable NTSP Web site by gate 5 for all ACAT I and selected ACAT II programs. All other programs refer to subparagraph 5a.

d. In addition to the above requirements, a preliminary NTSP is required 6 years prior to system initial operational capability (IOC) for ACAT I and II programs requiring military construction (MILCON), and a final NTSP is required by the earliest date for programs meeting the following criteria:

(1) Four years prior to system IOC for ACAT I or II programs requiring training device research, development, test, and evaluation.

(2) Prior to initial operational test and evaluation or low-rate initial production (LRIP), whichever is earlier in the process.

(3) Three months prior to IOC for rapid acquisition programs such as non-developmental item, COTS, rapid deployment capability, abbreviated acquisition program, and urgent need programs.

(a) Reference (a) defines the Department of the Navy (DON) urgent needs process and rapid development and deployment process that take precedence over the deliberate capability development process described in this instruction. For those programs approved to follow the urgent need process, "IOC" refers to the longer-term solution (i.e., program of record); not the short-term interim solution. The urgent need process ends with the delivery of a solution that meets an acceptable level of performance, timeline, and quantities as defined by the operating forces, and includes a handoff for sustainment and consideration within the deliberate process as defined in reference (a).

(b) The approved acquisition program baseline shall be used to establish IOC dates. In no instance shall pre-decisional proposals to adjust acquisition program baseline IOC be used to justify delays in the development of NTSPs.

e. ACAT I and selected ACAT II programs shall have an updated NTSP (parts I through VII) completed by gate 6. All

other ACAT and non-ACAT programs (with the exception of rapid acquisition programs such as non-developmental item, COTS, rapid deployment capability, abbreviated acquisition program and urgent need programs) shall have an updated NTSP at MS C. Throughout a system's life cycle, as program changes dictate and at a minimum annually, program offices shall validate NTSPs to determine if an update is required. Updates are required for events affecting MPT requirements. The program offices shall notify the resource sponsor(s) of NTSPs they intend to update to allow the resource sponsor to liaise with fleet stakeholders.

f. References (a) through (c) provide guidance on JCIDS documents, KPPs and key system attributes.

g. Reference (d) directs and details the development of requirements for human systems integration (HSI) within the JCIDS.

6. NTSP Development and Approval Process

a. Program managers (PM) are required to perform early and recurring front-end analysis (FEA) utilizing enclosure (1). The PM will perform training requirements planning to produce deliverables identified in enclosure (2). The new or modernized capability shall have a completed FEA prior to development of a preliminary or final NTSP. Training systems development, including curriculum, shall not start until the resource sponsor approves the FEA.

b. The output of training requirements planning is the preliminary NTSP. The PM will develop a preliminary NTSP (part I, and appendices A and B (POA&M and points of contact)) to document the MPT requirements identified during the FEA and training requirements planning per guidance in enclosure (3). The preliminary NTSP shall be posted on an applicable NTSP Web site following the schedule established in subparagraphs 5a and 5d.

c. Updating of the preliminary NTSP continues until the new acquisition's MPT concepts and issues are firm and resolved. At this point FEA and training requirements planning processes shall be discontinued and immediate work begun on producing a seven-part final NTSP.

d. Final and updated NTSP approval process is as follows:

(1) The program office develops and submits the seven-part "draft" NTSP to the resource sponsor. The resource sponsor initiates a 45-calendar day requirements validation, coordinating applicable stakeholders via Navy Taskers. Stakeholders validate MPT requirements documented in the NTSP and submit comments. The resource sponsor determines if a Navy training systems plan conference (NTSPC) is warranted after validation of the requirements. If warranted, the resource sponsor organizes and chairs the NTSPC, with the PM and training system program office providing support. The PM shall adjudicate all action items identified during the NTSPC and publish the results within 14 calendar days. If an NTSPC is not warranted, the NTSP is updated based on the comments received and adjudicated.

(2) Following the 45-calendar day requirements validation, the program office incorporates NTSP changes and submits the "proposed" NTSP (to include a summary of comments appendix) to the resource sponsor. The resource sponsor initiates a 30-calendar day concurrence validation, coordinating applicable stakeholders via Navy Taskers. The 30-calendar day concurrence validation is complete once applicable stakeholders concur, a DCNO (N1) concurrence letter is uploaded, and the resource sponsor approves the NTSP by uploading an NTSP approval letter into Navy Taskers.

(a) Mandatory stakeholders to be coordinated on both the Pass-1 requirements validation and the Pass-2 concurrence validation are the resource sponsor, training support agency, United States Fleet Forces Command (USFLTFORCOM), training agency, DCNO (N1) and Deputy Chief of Naval Operations for Fleet Readiness and Logistics (DCNO) (N4). These stakeholders shall coordinate their subordinate activities as applicable.

(b) The purpose of the Pass-2 concurrence validation is to validate adjudication of those comments submitted during the Pass-1 requirements validation and to validate the programmed sustainment funding.

(3) Programs that are part of the DoD component acquisition executive, joint programs, or those otherwise designated with Joint Requirements Oversight Council (JROC)- or

Joint Capabilities Board-interest, and major defense acquisition programs (ACAT 1D and ACAT 1C) do not receive final NTSP approval by the resource sponsor and require additional process steps, per reference (c).

e. The NTSP approval process for rapid acquisition programs such as non-developmental item, COTS, rapid deployment capability, abbreviated acquisition program, and urgent need programs non-developmental items, COTS, rapid deployment capability, and abbreviated acquisition programs shall follow the same procedures as above within a 14-calendar day draft NTSP requirements validation. The proposed NTSP concurrence validation shall follow a 14-calendar day vice 30-calendar day proposed NTSP concurrence validation. The approved final NTSP shall be posted at least 3 months prior to IOC.

f. As program changes dictate, and at a minimum annually, the program office shall validate their NTSPs to determine if an update is required and report their findings to the resource sponsor. Resource sponsors report the results of these reviews to DCNO (N1) by 1 February of each year by letter or e-mail.

7. Roles and Responsibilities

a. DCNO (N1) shall:

(1) Assess the impact and equities of acquisition, modernization, and configuration management on DON resources. Validate costs, programming, and collaboration with enterprises to support long-term strategies.

(2) Validate and approve manpower estimates per reference (e), validate and concur on NTSPs and training transfer agreements to assess warfighting platform and or manpower requirements against the current program of record across the FYDP. Assessment will include identification of potential excess and or shortfall of manpower, referencing the most recent version of manpower estimate, preliminary ship manpower document (preliminary ship manpower document), preliminary squadron manpower document (preliminary squadron manpower document) and or ship manpower document and squadron manpower document requirements as applicable.

(3) Validate and approve Navy Officer Occupational Classification System (NOOCS) and Navy Enlisted Occupational Classification System (NEOCS) packages for development of knowledge, skills and abilities, and human performance metrics based on fit and fill standards and occupational standards (per references (f) and (g)). Additionally, DCNO (N1) shall validate enlisted and officer distribution, training quota management, temporary duty under instruction, permanent change of station (PCS) move requirements and when applicable, coordinate with respective Marine Corps occupational field sponsor to ensure manpower equities and requirements are properly addressed and vetted through the Marine Corps manpower stakeholders.

(4) Provide oversight of process, policy, and procedures for this instruction.

(5) Advocate for systems command (SYSCOM) technical authority reviews of HSI prior to DCNO (N1) concurrence.

(6) Validate enlisted and officer distribution, training quota management, temporary duty under instruction, crew scheduling and phasing plan distribution, and PCS move requirements identified in NTSPs.

(7) Act as "executive agent" for manpower and training integration and the Chief of Naval Operations (CNO) principal advisor on all manpower and training issues impacting the cost and executability of military manpower, personnel policy decisions, and fleet manning levels.

b. DCNO (N4) shall:

(1) Assess fleet training readiness requirements for fleet synthetic training, the afloat training groups, electronic warfare training groups, tactical training groups, and Navy maritime operations centers. Validate identification of fleet requirements for advanced, integrated and unit training (e.g., temporary additional duty travel target, contractor maintenance service (CMS) of technical training equipment (TTE)).

(2) Coordinate with the TA and resource sponsor to program the sustainment resource requirements in the program objective memorandum (POM) before RFT.

(3) Provide oversight of process, policy, and procedures for the training system installation plan instruction, found in reference (h).

(4) Secure funding for training facility construction requirements utilizing DD 1391 FY Military Construction Project Data per references (h), (i), and (j).

(5) Fund training facility maintenance, modernization and upkeep.

c. Resource sponsors (DCNO for Information Dominance (N2/N6), DCNO (N4), DCNO for Warfare Systems (N9)) shall:

(1) Validate mission area requirements identified in CONOPS, JCIDS documents, KPPs, and key system attributes. Plan, program, and fund requirements for design, development, procurement, engineering change, modernization, and sustainment of the training system for the life cycle of the system(s). Integrate and coordinate cross-resource sponsor MPT requirements prior to submission of sponsor program proposals for those programs funded through multiple resource sponsors. Prioritize requirements and wholeness issues in the PPBE process.

(2) Validate by approval of NTSP requirements that the SYSCOM technical authority certification occurred during the systems engineering technical review (SETR) process. Provide for the transfer of training at RFT date, and ensure coordination on plans for initial crew and squadron training.

(3) Determine Military Personnel, Navy (MPN), Reserve Personnel, Navy, temporary duty under instruction, student individual's account, and Operation and Maintenance, Navy (O&MN) sustainment funding required to meet RFT date through the FYDP. Identify excess and or shortfall in student individual's account and or temporary duty under instruction funding.

(4) Fund all necessary appropriations. Fund FEA, personnel qualification standards (PQS), curriculum development, media analysis, job task analysis, studies, operations refresh, CMS, NTSPs, train the trainer and approved training systems in the same procurement appropriation as the equipment to be supported. Reimbursable funding will be provided for coordination, development, and contracts as necessary.

(5) Fund associated training devices and training materials based on the same precedence as the primary weapon system. Assess acquisition, modernization, and configuration management processes to ensure training systems support the job tasks identified in the FEA.

(6) Fund initial training (factory and original equipment manufacturer) courses and instructor advisory services, training infrastructure, contract instructors, contracted maintenance, vendor training and associated unique training systems until the sustained training system is implemented and accepted by the TA at RFT. Fund and provide availability of vendor training facilities (including modifications), operational equipment, and technical manuals for training purposes (other than training aircraft and expendable ordnance), including interactive electronic technical manuals (IETM) and courseware. Fund additional duty travel target funds for initial training, Navy enlisted classification (NEC) and military occupational specialty (MOS) and non-NEC and non-MOS producing courses, training devices, course curriculum materials, courseware and major revisions (e.g., enabling and terminal learning objectives), emerging command, control, communications, computers, combat systems, and intelligence (C5I) systems, security accreditation of courseware, and completion of a business case analysis (BCA) for transition of specific vendor training courses to formal Navy schoolhouses in time for POM submission. Fund initial production equipment, training material (including curriculum, job aides, TTE, etc.) and technical manuals for the new system's delivery. The installation schedule must be planned and aligned with training schedules so adequately trained personnel are available for the first operational unit. Ensure initial training equipment and necessary support items have a higher installation priority than operational units. Ensure the installation of initial training equipment and support items occurs prior to installation at operational units.

(7) Comply with reference (k) for the DON Application and Database Management System (DADMS) development, updates, and distribution of NTSPs using the training and education functional area managers approved applications. This requirement is necessary for the development, review, management, and delivery of training software, applications, databases, and Web sites.

(8) Comply with references (l) and (m) for all programs with training devices.

(9) Comply with naval nuclear propulsion plant operators and maintenance training policy, per reference (n).

(10) Assess MPT supportability of all acquisitions and modernizations programs. Initiate appropriate action to align MPT issues identified by USFLTFORCOM, fleet commanders, and enterprises. Advise USFLTFORCOM if fleet training requirements cannot be fully supported (resourced).

(11) Provide NTSP numbering, per enclosure (3).

(12) Fund interim plans for initial crew and squadron training environment(s). Planning must address a mitigation strategy for MPT risk by addressing the following:

(a) Funding requirements for training officer and enlisted school instructional personnel.

(b) Funding requirements for SYSCOM technical authority certification during the SETR process and adjudication by the PM and resource sponsor.

(13) Chair MPT advisory boards and, if required, the NTSPC. Approve the FEA, job task analysis, NTSP, and training transfer agreement requirements. Coordinate DCNO (N1) and key stakeholder concurrence of NTSPs and training transfer agreements via Navy Taskers.

(14) As the approving official, conduct NTSP issue resolution with key stakeholders prior to approval of the NTSPs. If, after issue resolution, concurrence is still not granted, issues shall be addressed at appropriate Resource Requirements Review Board, gates 3 through 6, MS decision meetings, gate reviews, and program sufficiency reviews.

(15) Fund development or revisions of Navy PQS and or equivalent Marine Corps Training and Readiness Program deliverables for new and modernized aircraft and ship classes, systems, and equipment, per reference (o).

(16) Fund development of MC documents and approve MC documents prior to procurement of training devices, per enclosure (1).

(17) Establish the training system RFT date by course identification number (CIN) and publish it in part I of the NTSP, per enclosure (3).

(18) Oversee the planning, development, and implementation of the training system installation plan, leading to the TA final acceptance of the training system from the training support agency to meet the established RFT date, per reference (h). Maintain formal liaison with DCNO (N1); USFLTFORCOM; fleet commanders; Commander, Navy Reserve Force; applicable training support agency and TAs; and inter-Service agencies or components to achieve satisfactory final acceptance of the training system at RFT.

(19) Determine whether the new acquisition system requires a TEEP, per enclosure (1). Fund development of the TEEP.

(20) Coordinate actions with the Marine Corps resource advocate (RA) when applicable. NOTE: Deputy Commandant for Aviation (DC AVN) is an RA under the Commandant Marine Corps (CMC), per title 10, and works in conjunction with the resource sponsor (Director, Air Warfare, OPNAV (N98)).

(21) Program infrastructure support requirements to support all new warfare platforms, new weapons, or C5I system acquisitions per reference (i), aligned with major delivery milestones across the FYDP, including initial outfitting of facilities.

(22) Serve as the end user (i.e., fleet) representative to the PM. Coordinate with fleet to ensure NTSP requirements are clearly articulated, and requirements are addressed. Provide feedback to fleet when resource, time, or other resources preclude completion of fleet MPT requirements ahead of IOC.

(23) Submit requirements for MILCON projects to the appropriate real property requirements generators and provide data as requested for their completion and submittal of the DD 1391, per reference (i).

(24) Perform additional process steps for NTSPs for programs that are part of the DoD component acquisition executive, joint programs, or those otherwise designated with JROC or Joint Capabilities Board-interest, and major defense acquisition programs (ACAT 1D and ACAT 1C), per reference (c).

d. SYSCOMs shall:

(1) In addition to the roles and responsibilities listed in references (a) and (p), Commander, Naval Supply Systems Command (NAVSUPSYSCOM); Commander, Naval Air Systems Command (NAVAIRSYSCOM); Commander, NAVSEASYSYSCOM; Commander, Space and Naval Warfare Systems Command (SPAWARSYSCOM); and, Commander, Naval Facilities Engineering Command (NAVFACENGCOM) shall:

(a) Comply with references (q) and (r) during development of new acquisition systems and prior to approval of on board installation or fielding of new system equipment or software. Comply with Alterations to Ships Accomplished by Alteration Installation Teams (SL720-AA-MAN-030), commonly referred to as the "One Book," prior to approval of on board installation.

(b) Validate that HSI, job task analysis, and manpower analysis results are certified by the appropriate technical authority, training support agency and TA prior to commencing development of the training system and are justified by subsequent updates of the NTSP during SETRs. Submit copies of certification and validation to resource sponsor.

(2) Serve as new acquisition PQS model manager and transfer responsibilities to the TA as per reference (o).

NOTE: Submarine qualification programs will be managed by type commander (TYCOM).

(3) Identify training system program office for all platforms to manage certain training support agency integration

roles (e.g., interim training, cross resource sponsor execution, etc.) in support of platform wholeness. Current training system program offices are listed in figure 2.

Figure 2

SYSCOM	SUB-SURFACE	SURFACE	AVIATION	C5I	EXPEDITIONARY
NAVSEASYSYSCOM	07TR	PMS339	-	-	-
NAVAIRSYSCOM	-	-	PMA205	-	-
SPAWARSYSYSCOM	-	-	-	PMW 4.3.4	-
NAVFACENGCOM	-	-	-	-	NAVFACENGCOM training support agency

e. PMs shall:

(1) Identify requirements for training infrastructure, instructors, contracted maintenance, vendor training, student individual's account, and temporary duty under instruction for NEC and MOS producing courses, training devices, capability upgrades, course curriculum, courseware, major revisions (e.g., enabling and terminal learning objectives), and emerging C5I systems. Ensure completion of a BCA for transition of specific vendor training courses to formal Navy schoolhouses in time for resource sponsor submission of POM.

(2) Identify, plan, and submit all system and resource requirements, including the development of the NTSP per reference (j), and coordinate current and future fiscal year (FY) cost estimates and priorities for training systems with resource sponsor(s). Document the current and future FY cost estimates in the program's cost analysis requirements document and the program life cycle cost estimates. Program funding in coordination with applicable resource sponsor and TYCOMs, fleet tactics, techniques and procedures resulting from new or modified training. Provide MPT resource requirements to all applicable resource sponsors.

(3) Develop and deliver the NTSP to the resource sponsor to meet the schedules described in paragraphs 5 and 6.

(4) Liaise with other program executive officers (PEO), PMs, TAs, Navy Manpower Analysis Center (NAVMAC), budget submitting office, and enterprise commanders for programs that may interface or have interdependencies with the new development and modernization. Advise the other PM(s), via the chain of command, of any unresolved issues.

(5) Support integrated product teams and the fleet assessment and certification in the modernization process.

(6) Perform comprehensive FEA (using enclosure (1)).

(7) Establish MPT advisory board and perform training requirements planning (using enclosure (2)).

(8) Identify and implement approved training resources.

(9) Develop training systems for initial and follow-on training.

(10) Provide all required training, equipment, and support up to RFT.

(11) Provide a list of NTSPs to be developed, updated, or recommended for cancellation in the current and following year to SYSCOMs and resource sponsors.

(12) Develop NTSPs as directed by resource sponsor(s) and ensure distribution to the NTSP principals.

(13) Announce, host, and provide administrative support for NTSPCs when directed by the resource sponsor.

(14) Advise resource sponsor and other NTSP principals of progress, schedule delay, and revisions affecting development or implementation of NTSPs. Provide recommendation as to type of curriculum update required for courses that have already transitioned to the TA (e.g., change, technical change or revision). Develop and maintain interim training until RFT acceptance by TA is complete as identified in the NTSPs.

(15) Manage resources for required new and updated training materials development as identified in the NTSP. Develop and maintain training until RFT as identified in the

NTSPs. Develop training for revisions (e.g., enabling and terminal learning objectives), required due to engineering change proposals and modifications to system(s) to include ship change documents.

(16) Manage resources to provide initial or other specified training identified in the NTSP. Coordinate with the TA responsible for follow-on training. Arrange inter-Service training support, per reference (s), if required.

(17) Manage resources for construction alteration, conversion, and restoration of TA facilities when installing and removing training equipment, per references (h) and (j).

(18) Develop, procure, deliver, install, and modernize TTE, training devices and other training material requirements identified in the NTSP throughout the life cycle of the system.

(19) Develop technical manuals, documentation, and updates for use in initial and follow-on training. The technical manual(s) shall be completed prior to the development of the training system. Distribute technical documents and subsequent updates to the training support agency, TA, and learning centers throughout the life cycle.

(20) Develop and coordinate job task analysis for operator, maintainer, user, administrator, and officer training requirements with the training support agency, TA, and learning centers (see enclosure (1)).

(21) Provide the TA with all new and updated curriculum materials, technical manuals, maintenance requirement cards, maintenance index pages (MIP), and maintenance assist modules for training equipment and PQS (per reference (o)) and or equivalent Marine Corps Training and Readiness Program deliverable.

(22) Provide the TA with initial outfitting of repair parts for new or modified training equipment prior to RFT.

(23) Advise the resource sponsor as to whether a new acquisition system requires an MC or TEEP. As directed by the resource sponsor, develop the MC or TEEP per enclosure (1).

(24) Submit funding requirements to resource sponsor prior to RFT, for TTE and training device CMS requirements via OPNAV 1500/40 Technical Training Equipment Sustaining Delivery and Support Form, excluding equipment identified by an NTSP.

(25) Manage approved TTE, training devices and related support through the FYDP, per reference (h).

(26) Procure and install modifications to TTE, training devices, training materials, technical documentation, and logistic support items (parts, tools, spares, test equipment, etc.) to coincide with changes to operational equipment and in coordination with the TA prior to turn-over to life cycle.

(27) Provide the TA with disposition instructions for excess TTE and training devices to include removal and disposal, and restoration of facility to usable condition, as applicable.

(28) Provide TTE and training device technical assistance when requested by the TA.

(29) Procure pre-faulted modules, fault insertion devices, and operational and diagnostic software for TTE.

(30) Develop and submit general-purpose electronic test equipment requirements for new acquisitions and modernizations. Procure special purpose electronic test equipment and special purpose tools prior to the RFT date. Fund, requisition, and distribute electronic test equipment to the TA prior to the RFT date.

(31) Comply with inter-Service training procedures for joint and joint service requirements identified in reference (s) as applicable.

(32) Transition training system from the training support agency to the TA for life cycle support requirements prior to the RFT date, per reference (h).

(33) Provide updates to curriculum baseline and relevant source data documents, including FEA deliverables, assumptions and trade-off data for the life of the program.

(34) Develop and manage curriculum materials, interactive courseware, distributed learning, and content (based on results of a BCA) until RFT (and revisions to address system changes occurring after RFT), per references (d), (t) and (u) for Naval Education and Training Command (NETC) domain.

(35) Identify and coordinate training system shore facility requirements, planning, installation, and transition training responsibilities from the training support agency to the TA, per references (h), (p), and (s).

(36) Assess HSI domains during the cost benefit analysis (CBA), and use this information to affect technology development and analysis of alternatives (AoA) prior to development of the JCIDS initial capabilities document (ICD), capability development document (CDD), and capability production document (CPD) HSI sections, per reference (d). Ensure that job task analysis and manpower workload analysis results are certified by the technical authority, and subsequent updates to NTSPs are provided during SETRs and integrated logistics assessments.

(37) Establish and maintain procedures that provide equipment to support adequate training prior to IOC. Provide interim training system (e.g., vendor training) if delays in the development of the training system will not allow compliance. Document the interim training system in the NTSP.

(38) Plan, coordinate, install, and manage alterations and modernizations at training activities prior to fleet installations and ensure configuration and concurrency management of TTE and training devices.

(39) Notify the resource sponsor, USFLTFORCOM, the fleet user (e.g., fleet commander), the training support agency, and the TA, by traceable means (e-mail, letter or Navy message) in sufficient time to allow appropriate risk mitigation action (e.g., manpower, equipment, and resources) in the event that a training system is not adequately funded. If there is legal risk involved, notify the Office of the General Counsel.

(40) Validate NTSPs as program changes dictate and at a minimum, annually review the NTSP to determine if updates are required. Obtain fleet stakeholder input as part of the annual

NTSP validation. Report results to the sponsors and post the results on the applicable SYSCOM Web site. Minimum required data to be reported is:

- (a) Title and number of the NTSP.
- (b) Date of completed validation.
- (c) PM point of contact.
- (d) Updated NTSP required or not required.
- (e) If an update is required, provide justification and impact, and indicate the FY the NTSP will be updated.

(41) Validate NETC Human Performance Readiness Review messages and other TA, fleet, or SYSCOM technical training audit and resource sponsor feedback for action items associated with the NTSPs, and address action items during annual validations and future updates.

(42) Provide initial operational equipment, alternative media, and technical manuals to the training commands for those items required to train personnel in the operation, maintenance, employment, and equipment support.

(43) Participate in training effectiveness evaluations (TEE) as requested by the resource sponsor.

(44) Perform all steps listed in reference (h) to develop and implement the training system installation plan, and steps listed in enclosures (4) and (5) to develop and implement the training transfer agreement. Coordinate training system installation plan and training transfer agreement with the resource sponsor and TA to meet the resource sponsor established RFT date.

(45) Ensure the training transfer agreement documents the formal security accreditation for curriculum materials, and the transition of all individual and fleet training requirements and resourcing from the resource sponsor(s) and program office(s) to the training support agency and TA.

(46) Provide initial training and necessary support until a final training system is established and transferred to the TA. Initial training requiring operational equipment shall be provided at a higher priority than installation at operational units.

(47) Assist the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) in performing operational test (OT) per an approved test and evaluation master plan.

f. Training support agency shall:

(1) Develop training systems that equip Sailors and Marines with the proper knowledge, skills and abilities to meet fleet and Fleet Marine Force (FMF) requirements.

(2) Develop training systems (e.g., courseware and content, including distributed learning, in-service training, on board training, and self-paced computer-based training) in compliance with references (t) and (u) for NETC domain.

(3) Conduct HSI planning, FEA, BCA, and develop required PQS and or equivalent Marine Corps Training and Readiness Program deliverables for associated MPT requirements.

(4) Provide programming and budget requests for resources to the resource sponsor for initial or other specified contract training identified in the NTSP.

(5) Coordinate with the TA responsible for follow-on training to determine an RFT date recommendation to the resource sponsor for approval and programming.

(6) Submit funding requirements for all deliverables identified in reference (j) to the resource sponsor and or TA to ensure maintenance of the training system is in place prior to RFT date.

(7) Coordinate with the TA to determine funding information for training maintenance. Maintenance is a training support agency responsibility until RFT, at which time it becomes a TA responsibility. TA has organizational and intermediate level maintenance responsibility only, and only if intermediate level capability has been established and provided

by the PM and training system program office. The training support agency has depot level maintenance responsibility.

(8) Assist the PM in the development, coordination, and execution of the training transfer agreement. Communicate training transfer agreement status changes to the TA and resource sponsor(s).

(9) Develop and document the training transfer agreement prior to MS C in enclosure (5) format. Ensure testing, safety, and training objectives are met before the system is ready for transfer. Coordinate with the PEO and PM to establish required delivery dates (RDD).

(10) Plan and execute CMS contracts for training systems under training support agency custody and responsibility. Submit OPNAV 1500/40 to the resource sponsor 2 years prior to the end of the warranty period.

(11) Plan for and provide budget submissions to the PM for development of job task analysis, FEA, PQS, media analysis, studies, curriculum, operations refresh, CMS, NTSPs, approved training systems, and train the trainer for modernization of systems. Reimbursable funding will be provided when appropriate for coordination, development, and contracts as necessary.

(12) Conduct training system audits and identify overhaul candidates as required.

g. TA shall:

(1) Execute approved training system sustainment requirements at RFT date per references (h), (j) and (v). The TA may expressly provide for the delegation of TA responsibilities within its chain of command.

(2) Execute funded follow-on training requirements of the approved training system.

(3) Execute responsibilities of PQS model manager after fleet introduction, per reference (o).

(4) Submit to resource sponsor and SYSCOM training system program office all in-service TTE, training device and

major course revisions due to engineering change proposals and modernization sustaining resource requirements using OPNAV 1500/40.

(5) Provide subject matter experts (SME) for FEA, MPT advisory boards, and NTSPCs.

(6) Validate training curriculum materials to ensure initial training and follow-on training meets requirements, per references (t) and (u), for NETC domain. Also, validate recommendation of type of curriculum update; develop a plan in coordination with the training support agency to transition updated materials that are not classified as a revision.

(7) Perform all assigned steps and responsibilities listed in reference (h) and enclosures (4) and (5) to participate in the planning, development, implementation, and validation of NTSP, training system installation plan, and training transfer agreement, respectively, leading to TA final acceptance of the training system from the training support agency to meet established RFT date.

(8) Execute the transition of responsibility for the training system(s), including TTE, training devices and support equipment after acceptance testing and delivery, per reference (h).

(9) Submit to the PM, USFLTFORCOM, fleet commander, and subordinate commander staff feedback and lessons learned on training effectiveness.

(10) Coordinate with the PM for scheduling of TTE overhauls, as well as depot level calibration actions.

(11) Coordinate with training support agency to validate delivery of the training transfer agreement requirement during installation. TA shall coordinate with resource sponsor to program sustainment resource requirements in the POM before RFT.

NOTE: TA has organizational and intermediate level maintenance responsibility only, and only if intermediate level maintenance capability has been

established and provided by the PM and training system program office. The training support agency has depot level maintenance responsibility.

(12) Based on an approved NTSP and signed training system installation plan, validate delivery of the training transfer agreement requirements during installation and program funding for training requirements in the POM before RFT.

h. NETC shall:

(1) Serve as the TA for individual training within the NETC domain and learning centers. NETC is not the TA for training conducted outside NETC domain and process requirements will be negotiated with the enterprise.

(2) Support SYSCOM training system program office validation of FEAs and job task analysis that identify the gap between baseline comparison MPT requirements and new equipment, system, or subsystem MPT requirements.

(3) Validate the BCA and that the training requirements listed in NTSPs are included in officer and enlisted school and skill development plans.

(4) Coordinate and resource subordinate activities and learning centers for participation supporting the NTSP process.

(5) Standardize, integrate, and support individual training and education of the warfighter.

(6) In coordination with the resource sponsor, plan and execute CMS contracts for training systems under NETC custody and responsibility. Submit OPNAV 1500/40 to the resource sponsor 2 years prior to the end of the warranty period.

(7) Coordinate with the respective enterprise to determine the adequacy of individual skills training as it impacts mission capability and fleet and FMF readiness. Develop, update and modify individual training to meet fleet requirements, per reference (w).

(8) Designate the lead learning center for those programs that cross multiple learning centers.

(9) Provide computation of instructor, throughput and individual's account requirements for development of NTSPs within 30 days of request. Additionally, provide the process (e.g., instructor computation model) to determine requirements.

(10) Validate draft NTSP requirements and provide concurrence recommendation to DCNO (N1) on proposed NTSPs.

(11) Communicate with USFLTFORCOM, warfighting enterprises, fleet commanders, subordinate commander staffs, resource sponsor, and the PM for feedback and lessons learned on the effectiveness of the training system to satisfy the capability requirement.

(12) Comply with inter-Service training procedures for joint service requirements identified in reference (s).

i. USFLTFORCOM, in coordination with Commander, Pacific Fleet, shall:

(1) Validate and prioritize fleet training requirements.

(2) Provide policy, guidance and oversight for fleet training, per reference (w).

(3) Provide notification to resource sponsor and PM for all ship installations (D type alterations).

(4) Validate NTSPs, coordinate training project plan (TPP) updates, and provide concurrence via Office of the Chief of Naval Operations (OPNAV) TV5 Tasker System. Participate in issue resolution deliberations with applicable resource sponsor and PM involving fleet training program issues.

j. Deputy Commandant for Combat Development and Integration, and Headquarters Marine Corps, DC AVN shall:

(1) Serve as the primary conduit for all aviation-related JCIDS issues.

(2) Provide guidance to subordinate activities to prioritize and fund CDDs and participate in the NTSP process.

(3) Validate NTSPs for integrated Navy and Marine Corps training programs.

8. Action. OPNAV activities shall ensure that existing NTSPs and training planning documents comply with new requirements set forth exclusively within this instruction unless otherwise directed by the resource sponsor.

9. Definitions and Acronyms. Enclosures (6) and (7) provide definitions and acronyms used within this instruction.

10. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV M-5210.1 of January 2012.

11. Forms and Reports Control

a. OPNAV 1500/40 (8/97) Technical Training Equipment Sustaining (Delivery) and Support Form may be obtained through Naval Forms at <https://navalforms.documentservices.dla.mil>.

b. Department of Defense 1391 FY Military Construction Project Data may be obtained through the DoD Forms Management Program Web site at <http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd1391.pdf>.

c. Reports contained within this instruction are exempt from reports control per SECNAV M-5214.1 of December 2005.


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(Manpower, Personnel, Training
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Distribution:
Electronic only, via Department of the Navy Issuances Web site
<http://doni.documentservices.dla.mil/>

FRONT-END ANALYSIS (FEA)

NOTE: This enclosure can be tailored by the developer to fit program requirements, as concurred with by the resource sponsor and the SYSCOM training system program office.

1. Purpose. This guidance is provided to ensure FEA for new and modified systems provides a comprehensive analysis of the manpower, personnel, training, management, acquisition, and development requirements.
2. Background. FEA is the iterative process by which the PM evaluates the new or modified tactical or non-tactical equipment, system, or subsystem to determine what manpower, knowledge, skills and abilities will be required to safely operate and maintain these systems and equipment. FEA methods shall be tailored appropriately to the acquisition phase and the maturity of system development. Early in the acquisition process, FEA efforts are driven by new or changed mission requirements identified in JCIDS documents. This includes equipment, systems and subsystems modified under the alterations and modifications process. FEA enables acquisition professionals to project MPT requirements based on the relatively limited data available prior to MS B and as new concepts and issues mature leading up to MS C. Updates of the preliminary NTSP continue until the new acquisition's MPT concepts and issues are firmly addressed in final NTSPs and training transfer agreements. FEA is used as the baseline requirements document for development of training requirements planning and the NTSP.

3. Process

- a. For legacy systems, FEA is a task-based process utilizing the steps outlined in this enclosure. For new systems, alternative FEA approaches such as top down functional analysis shall be considered with a clear path established toward a task based FEA as the system concept matures. The PM performs FEA to determine gaps between required and existing knowledge, skills and abilities and to formulate a training strategy. The FEA and gap analysis shall be aligned with the required operational capability, CONOPS, NECs, PQS, and watch-standing tasks associated with the legacy, acquisition, or

modernized system. Completion of these tasks are defined by measureable performance standards at difference watch-standing conditions based on knowledge, skills and abilities. The PM develops a strategy to most cost-effectively fill identified training gaps. The FEA provides various training system delivery alternatives while considering the skills to be acquired, the preferred media mix and setting for the training of each skill, and the training effectiveness of each alternative per reference (u). The FEA shall provide a clear recommended assessment strategy to explain how the acquired skills are tested by the training organization. Also, per references (l) and (t), distributed learning shall be included as one of the training delivery alternatives, as shall embedded training for acquisition category programs initiated after 16 June 2006.

b. FEA shall be conducted in close coordination with the impacted warfighting enterprise and learning center(s), especially when identifying and evaluating training system alternatives. The FEA includes a capability based assessment based on established measures of effectiveness (per reference (u)) for NETC domain.

4. Procedure. The following actions will be performed to determine if a new training requirement is needed as a result of an introduction of new equipment, system, or subsystem acquisition, or modification of an existing equipment, system, or subsystem.

a. A job task analysis is initiated after the AoA, ICD, and material development decision. The job task analysis shall be conducted in a fashion appropriate to system maturity with early job task analysis efforts being top down and evolving over time with increased system maturity to a more bottom up job task analysis. It is used to support MS B and C or appropriate alterations and modification document reviews. Enclosure (2) of this instruction provides a methodology for conducting job task analysis (or task analysis). A job task analysis is performed to identify the work in the form of tasks that are clustered to create duties and duties that are clustered to create jobs, which align to occupations. The output of a job task analysis provides the jobs, duties, tasks, subtasks, and steps required to operate, maintain, and repair equipment, systems, and subsystems. The program shall determine which attributes are

appropriate to include, but not limited to, conditions; standards; criticality; frequency; decay rate, difficulty to learn, percent of occupation performing the work; error rate; and task delay tolerance. Attributes will be assigned to each task.

b. Training situation analysis evaluates an existing training capability to identify the need for additional or modified training. This analysis reviews the existing training with the warfighting enterprise and learning center to determine if the current training capability meets the fleet's requirement. A suggested format is provided below:

Training Situation Analysis

Cover Page

Table of Contents

Executive Summary - Provide high-level summary of the analysis conducted with conclusion, recommendations, and cost estimate, if tasked to provide.

I. Introduction

a. Evolution of Requirements - Provide information on who directed the analysis to be performed.

b. Assumptions - Identify any assumptions or restrictions used in performing this task.

c. Mission Analysis - - Identify the equipment, system, or subsystem being evaluated and its supporting formal schoolhouse training and on board training.

d. Operational Requirements - Briefly identify the purpose of the equipment, system, or subsystem in the fleet.

II. Training Analysis

a. Objective - Identify the purpose of the training situation analysis.

b. Methodology - Describe how data was gathered necessary to complete the task (i.e., whom was interviewed, etc.)

c. Training Situation - Identify the current formal training provided to support the equipment, system, or subsystem.

d. Personnel Requiring Training - Identify who receives this training.

e. Proposed Training - Identify what modified or new training is needed.

III. Training Requirements and Objectives

a. Training Requirements - Identify the authority directing the training requirement (i.e., NTSP, etc.)

b. Training Objectives - Identify the knowledge and skills that will be provided.

c. Training Devices - Identify if any training device(s) is needed to convey the training objectives.

d. Training Analysis Summary - Summarize the results of the analysis.

IV. Conclusion - Identify conclusions.

V. Recommendations - Identify recommendations.

VI. Points of Contact - List those personnel who were involved in conducting this analysis (instructors, fleet personnel, etc.)

VII. List of Acronyms

Tables/Figures/Appendices as required.

c. Training systems requirements analysis (TSRA) evaluates the new or modified tactical or non-tactical equipment, system, or subsystem to identify a new training requirement(s). The TSRA will recommend the appropriate training strategy and provide cost estimates to develop the training. The training support agency is included in the TSRA and training situation documents when evaluating an introductory new or modified acquisition. When the training situation analysis is part of a

TSRA, the combined deliverable may be called a "training situation document." A suggested format is provided below:

Training Systems Requirements Analysis (TSRA)

Cover Page

Table of Contents

Executive Summary - Provide high-level summary of the analysis conducted with conclusion, recommendations, and cost estimate, if tasked to provide.

I. Introduction

a. Evolution of Requirements - Provide information on who directed the analysis to be performed.

b. Assumptions - Identify any assumptions or restrictions used in performing this task.

c. Mission Analysis - Identify the equipment, system, and subsystem being evaluated and its supporting formal schoolhouse training and on board training.

d. Operational Requirements - Briefly identify the purpose of the equipment, system, or subsystem in the fleet.

II. Training Analysis

a. Objective - Identify the purpose of the training situation analysis.

b. Methodology - Describe how data was gathered necessary to complete the task (i.e., whom was interviewed, etc.).

c. Training Situation - Identify the current formal training provided to support the equipment, system, or subsystem.

d. Personnel Requiring Training - Identify who receives this training.

e. Proposed Training - Identify what modified or new training is needed.

III. Training Requirements and Objectives

a. Training Requirements - Identify the authority directing the training requirement (i.e., NTSP, etc.)

b. Training Objectives - Identify the knowledge and skills that will be provided.

c. Training Devices - Identify if any training device(s) is needed to convey the training objectives.

d. Training Courseware - Identify if any training courseware is needed to convey the training objectives.

e. Training Analysis Summary - Summarize the results of the analysis.

IV. Conclusion - Identify conclusions.

V. Recommendations - Identify recommendations and the cost associated with each recommendation.

VI. Points of Contact - List those personnel who were involved in conducting this analysis (instructors, fleet personnel, etc.)

VII. List of Acronyms

Tables/Figures/Appendices as required.

d. Training device decision coordinating paper (TDDCP) provides a technical assessment of potential training systems in support of the training media selection process. The TDDCP includes a complete description of the alternatives and a recommended solution with supporting rationale. The TDDCP is submitted to the resource sponsor for selection of the alternative.

A suggested format is provided below:

Training Device Decision Coordinating Paper (TDDCP)

I. Background

a. General - Purpose of the equipment, system, or subsystem.

b. Tasking - Provide information on who directed the development of this document.

II. Training Systems Requirements Analysis (TSRA)

a. Operational Requirements - Briefly identify the purpose of the equipment, system, or subsystem in the fleet.

b. Proposed Training - Identify what modified or new training is needed and the enlisted ratings or officer designators involved.

c. Training Requirements - Identify the operator and maintenance skills required to support the equipment, system, or subsystem.

d. Training Objectives - Identify the knowledge and skills that will be provided.

e. Functional Requirements of Training System - Identify what the training device capability must do to convey all training objectives.

III. Training Devices and Design Alternatives - Provide at least three alternatives with associated costs.

IV. Conclusion - Provide conclusions with reference to each alternative.

V. Recommendations - Provide recommended alternative with supporting rationale.

Appendix A - Provide summary of the options in table format as follows.

Option	Description	Cost	Advantage	Disadvantage	Remarks
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e. An MC document provides functional description of a training device, if required. The MC document describes how the trainer will be developed following any known constraints on cost, production, supportability, and maintainability. The MC is the description of the actual device that will be delivered to the user. The MC also includes information about the facilities and provides functional description of a training device or stimulated TTE, or other hardware if required. Often, the initial MC provides a conceptual description of the training device in terms of its functions and the tasks it will support, with additional technical details provided later as the concept is refined and physical characteristics or a functional description is defined.

(1) An MC document is developed after the media selection process. The MC defines the physical and functional baseline characteristics a training device must have to fulfill its requirements as one component of an instructional system. The MC results from a training analysis of the knowledge and skills required to operate and maintain a training device.

(2) Detailed instructions for the preparation of each part of the MC are contained in the following paragraphs.

(a) Part 1 Introduction. The MC introduction consists of a cover sheet, a table of contents, and an executive summary.

(b) Part 2 Requirement. This section identifies the training need for which this document is being prepared. It includes a description of the operational or tactical system or equipment which forms the basis of the training requirement and discusses the purpose and functional use of the operational system or equipment.

(c) Part 3 Training Analysis. Assumptions, methodology, training goals, and training device operation and projected utilization will be addressed to the extent of details required that are not available in the NTSP.

(d) Part 4 Training Device Description. This section describes the functional characteristics of the proposed training device to enable visualization of its physical configuration and capability to achieve the learning objectives.

In addition to the functional characteristics, constraints are discussed, as well as instructor, operator, and student stations; instructional support features; number of training devices; interfaces; installation requirements; and availability and use goals.

(e) Part 5 Training Device Support. This section provides the concepts, goals, and constraints that will control development of the integrated logistics support (ILS) package for the training device.

(f) Part 6 Training Device Test and Evaluation. This section identifies what tests and evaluations will be conducted. It will also refer to the TEEP, if available.

(g) Part 7 Training Device Updates. If there is a recognized requirement for a preplanned product improvement program, it will be addressed in this section.

f. A TEEP outlines the procedures used to assess the effectiveness of a training system in leading students to achieve the program learning objectives. The TEEP, where applicable, provides an analysis of training capability based on demonstrated trainee performance improvements directly attributable to the training received. The requirements for a TEEP will be addressed in the NTSP, based on a team and individual evaluation plan to conduct the TEE.

(1) A TEEP is developed by the PM as directed by the resource sponsor.

(2) When a TEE is required, an approved TEEP shall be completed no later than 6 months before planned commencement of the TEE. The initial TEE is conducted 6 months after the first use of the training system in a course or after the second course session, whichever occurs later.

(3) The TEEP will be composed of subset plans for each functional area (e.g., cover page, program identification, planned evaluation, evaluation strategy, TEE agent selection, TEE results, and initial or repeat TEEs, etc.).

(4) Detailed instructions for the preparation of a TEEP are contained in the following.

(a) Part 1 Program Identification. Cover page identifying the training system or the training device, date prepared, and activity or organization by code preparing the document. Provide a table of contents identifying training system or training device name and number. Identify host activity and location of training site(s). List identification of training effectiveness evaluation agent (TEEA) (single organization or organization(s)) to send team members with lead activity also identified. Identify the planned RFT date. List the number, rank, rate, and rating of students to be considered. List the number and type of instructor or support personnel.

(b) Part 2 Planned Evaluation. Data on the adequacy of the curriculum, student or instructor qualifications, and training system or training device ILS. Data on the goals to be met by the evaluation (e.g., the specific information that is required from the TEE about a training system or its use). Description of the training system and how it supports the overall training program. Training tasks assigned to be accomplished through use of the training system or training device. Standards to be employed to determine whether the stated objectives can be or have been met by training system or training device use. Evaluation strategy or strategies to be employed. Training scenarios when appropriate. Techniques and procedures that will be used for collecting data. Details as to how measuring instruments will be selected, modified, developed, and used during the TEE. Details as to how the collected data will be processed and reported to reflect training effectiveness. The schedule for data collection and completion of the TEE. The numbers and types of personnel required to monitor, collect, and process the data. Any special training requirements for personnel who will monitor, collect, and process the data. Special resources required to conduct the TEE.

(c) Part 3 Evaluation Strategy. The TEE focuses to the extent practicable, on actual experience with the training system or training device. This is an empirical evaluation. The empirical TEE is an assessment of the given training system against the established learning objectives. The user conducts the training course with the actual students. The evaluation team observes and monitors the training. Data is collected and analyzed concerning the ease and degree to which the training objectives are met.

(d) Part 4 TEEA Selection. The resource sponsor considers the extent of TEE desired in the selection of a TEEA. The TEEA will possess or be provided dedicated resources, and be able to report results directly to the resource sponsor. The TEEA could be the COMOPTEVFOR, TA, enterprise commander, SYSCOMs, or a team of personnel from these organizations (with a designated lead activity). SMEs should be available to the TEEA to analyze the curriculum and instructional strategies, make a technical assessment of the training system or training device, and to prepare specific tests and perform subsequent analyses of the data collected.

(e) Part 5 Initial and Repeat TEEs. Each TEEP will undergo a draft review process, followed by preparation of a proposed version. The proposed TEEP version is forwarded to the resource sponsor for approval. Distribution of the approved TEEP includes DCNO (N1), TA, and others as appropriate.

(f) Part 6 TEE Results. Results of the TEE (including significant findings and recommendations) will be provided to the resource sponsor, DCNO (N1), and others as appropriate in a letter signed by the senior member of the TEEA team. It will include identification of action offices. A technical evaluation containing background and detailed information on the TEE and its results will be provided. Resolution of the identified deficiencies will be documented by the resource sponsor. When TEE results are unsatisfactory, the TEEA will track progress until rectification of all training system deficiencies. Resource sponsors will determine the need for follow-up TEEs.

TRAINING REQUIREMENTS PLANNING

NOTE: This enclosure can be tailored by the developer to fit program requirements, as concurred with by the resource sponsor and the SYSCOM training system program office.

1. Purpose. To provide a systematic set of tasks and sub-tasks which will cause examination of alternative system concepts early in the acquisition process and then determine the best possible MPT profile of that new acquisition system. Application ensures MPT considerations are integrated into the design effort of Navy platforms, equipment, systems, and subsystems to improve total system performance and reduce life cycle costs by focusing attention on the capabilities and limitations of the Sailor and Marine. Training requirements planning being task based, PMs have the ability to tailor the level of MPT analysis that will be applied to their program with the concurrence of the SYSCOM training system program office and the TA.

2. Background

a. Execution of listed tasks provides a structure for MPT analysis and resource requirements documentation. This analysis is designed as a precursor to the NTSP process. It initiates the MPT planning early in the acquisition process, prior to system design, thereby allowing manpower and training requirements to influence system design. At this early juncture, MPT analysis makes possible the comparison of alternative manpower and training concepts and the early formulation of training resource requirements for each alternative concept. In this manner, a final concept is selected and ample lead time is provided to identify, program and acquire manpower and training resources, formulate and establish the training program, and detail and train personnel.

b. Application of below tasks results in the development of a preliminary NTSP. The data contained in early iterations of the preliminary NTSP are preliminary in nature and do not represent the official MPT requirements of the program. These initial estimates are designed for planning purposes only and to assist the PM in assessing various design alternatives.

c. The preliminary NTSP provides participants in program development with preliminary estimates of system requirements and proposed manpower and training requirements and alternatives. During the course of hardware development, early estimates can and will be revised and a more formal statement of the system's MPT requirements will evolve.

d. Application of the below tasks is intended to be iterative. It is not intended to be applied only once in order to produce a single preliminary NTSP. Rather, several versions of the preliminary NTSP shall be produced. As the acquisition program proceeds, the information available for analysis increases in Navywide quality and quantity. As a result, the MPT planning estimates produced by this analysis will become more specific and demand follow-on versions of the preliminary NTSP. Updating of the preliminary NTSP should continue until the new acquisition's MPT concepts and issues are firm and resolved. At this point, below analysis should be discontinued and immediate work begun on producing a complete seven-part NTSP.

3. Process

a. Early in program development, the PM will identify the SMEs and qualified MPT analysts with applicable MPT technical authority working as part of the Navy manpower community within the specific system's warfare community necessary to support the MPT analysis of the new acquisition. These personnel shall comprise the MPT advisory board.

b. The PM will notify all organizations selected for membership on the MPT advisory board in sufficient time so that the board will be in place soon after program initiation. Following notification, the selected organizations are responsible for designating the appropriate representatives and supporting related travel and other needs.

c. The structure of the MPT advisory board is at the discretion of the resource sponsor. Membership of the MPT advisory board shall include, but not be limited to, representatives from the following:

- (1) SYSCOM, PEO, or PM
- (2) DCNO (N1)
- (3) Applicable resource sponsor
- (4) Naval SYSCOMS (training system program office)
- (5) NETC
- (6) Navy Personnel Command for Career Management (officer and enlisted community managers)
- (7) USFLTFORCOM
- (8) Enterprise commanders
- (9) NAVMAC
- (10) Key members of the MPT analysis collection team
- (11) Joint offices and joint Service representatives, as required
- (12) United States Marine Corps (USMC) equivalents

d. The MPT advisory board will be chaired by the resource sponsor. Participating organizations will designate representatives who are knowledgeable of their organizations' involvement in acquisition program support and empowered to make decisions on behalf of their organization concerning MPT issues.

e. The process is divided into seven tasks aligned with subparagraphs 4a (task 1) through 4g (task 7). Each task has one or more sub-tasks. Subparagraphs 4d, 4e and 4f are optional tasks. Tasks should be performed by analysts knowledgeable in the MPT discipline.

f. Application can be applied to single, stand-alone equipment, systems, or subsystems, as well as total platforms. For single stand-alone systems (e.g., fire trucks, laser guided bombs, radar sets) or equipment, systems, or subsystems being added (or replacing other equipment, systems, or subsystems) to a total platform (aircraft or ship), application of

subparagraphs 4a through 4c tasks will define MPT requirements. If the baseline comparison system (BCS) is not the equipment, system, or subsystem being replaced, subparagraph 4d task must be performed.

g. Determination of the MPT requirements for a total platform (aircraft or ship) is somewhat more complex than single, stand-alone equipment, systems, or subsystems. The training requirements planning concept is that MPT requirements for a total platform can be divided into two categories, equipment driven and non-equipment driven. Maintenance personnel, equipment operators, and some watchstations are examples of equipment driven manpower. Supervisors, division and department heads, damage control personnel, and administrative personnel are examples of non-equipment driven personnel. To determine the MPT requirements for a total platform, the MPT analyst should first determine the equipment driven MPT requirements, then the non-equipment driven MPT requirements.

h. Determining the total platform equipment driven MPT requirements shall be accomplished in three steps. The analyst should first identify joint and joint service requirements and then select a comparable existing platform. Once this is completed, the ship or aircraft squadron's department (ship application) or department and work center (aircraft applications) composition must be determined. Using the platform and department and work center (aircraft applications) structure as a baseline, the analyst should apply subparagraphs 4a through 4c (optional subparagraph 4d) tasks to the functional equipment, system, or subsystem within or the responsibility of each department (ship application) or department and work center (aircraft applications). If performed properly, these three steps will result in the total platform equipment driven MPT requirements and alternative concepts.

i. The non-equipment driven manpower and personnel requirements for a total aircraft or ship are determined with complex formulas, algorithms, and matrices developed by NAVMAC. Before the non-equipment driven manpower and personnel requirements can be developed, baseline data for these formulas, algorithms, and matrices must be determined. Performing subparagraph 4e task (total aircraft applications) or

subparagraph 4f task (total ship application) will produce this data and subsequently the non-equipment driven manpower and personnel requirements.

4. Procedure

a. Construct BCS.

(1) Collect Preliminary Data

(a) Identify and interview key personnel involved in the program. These points of contacts should include OPNAV, SMEs at the SYSCOM, the PEO, the PM, assistant PM of logistics, training system program office, and any other personnel supporting the acquisition of the new equipment, system, or subsystem and training system. Deliverable: List of key personnel, their activity, code, and office contact information.

(b) Collect program documentation. For documents that are not for distribution, record any pertinent data they contain. Caution must be exercised when dealing with early program documentation as some may be classified or procurement sensitive. All data should be verified with appropriate SMEs to confirm their validity and to ensure they can be freely used. Deliverable: Narrative summary of the operational uses of the new equipment, system, or subsystem, its functional description, operational, and maintenance concept.

(c) Identify the components of the new equipment, system, or subsystem and any different configurations that may exist on one or more classes of ships, types of aircraft and their squadrons, or shore activities. Identify the mission of the new equipment, system, or subsystem; the operational scenario, system and operating constraints; guidelines; performance goals; and program structure. Deliverable: List of the components and configurations of the new equipment, system, or subsystem, its mission, performance goals, constraints, and interfaces.

(d) Identify each platform, equipment, system, and subsystem being replaced, hereafter referred to as the "predecessor(s)," by the new equipment, system, or subsystem. Identify any physical or functional interfaces and impacts the new equipment, system, or subsystem will have on existing

equipment, systems, or subsystems external to it. Deliverable: List of each platform, equipment, system, or subsystem being replaced by the new equipment, system, or subsystem.

(2) Develop BCS. Examine the predecessor and various other Navy, DoD, foreign, or civilian comparable equipment, system, or subsystem that closely match the form, fit, and or function of the new equipment, system, or subsystem and select those that most closely match the requirements of the new equipment, system, or subsystem. To be considered for the BCS, or part of the BCS, the candidates must have mature reliability and maintainability data. Since the predecessor will have many of the attributes of the new equipment, system, or subsystem and will have mature reliability and maintainability data, the predecessor must be looked at carefully as a BCS candidate. In some cases, there will be no predecessor or existing equipment, or the predecessor will not provide a suitable basis for comparison. In these cases, the BCS may be a composite, which is a BCS composed of equipment, systems, or subsystems from a number of different end items which, when taken together, closely resemble the new equipment, system, or subsystem. In other cases, there may be no existing equipment, system, or subsystem that will provide a suitable basis for comparison. In this eventuality, the new equipment, system, or subsystem and or its components that do not have a BCS should be documented. In subsequent tasks, the analyst must develop a method of estimating the required MPT data.

NOTE: In the event the predecessor is not used as the BCS, optional subparagraph 4d task shall be performed to determine what MPT resources currently exist that could be used to support the new equipment, system, or subsystem. Perform a series of comparisons between the requirements of the BCS candidates and the requirements of the new equipment, system, or subsystem. Identify and document the single equipment, system, subsystem, or composite that most closely resembles the new equipment, system, or subsystem. This selection should be based on the similarity of those elements that determine or affect MPT requirements. From this point on, the selected BCS shall be used as the basis for projecting the MPT requirements of the new equipment, system, or subsystem. Deliverable: List of the BCS components.

b. Identify BCS manpower and training requirements.

(1) Collect BCS manpower data.

(a) Consistent with skill identifiers utilized in the Total Force Manpower Management System (TFMMS) (e.g., quality), identify and record the type of current manpower resources required for the operation, maintenance, and support of the BCS or its components. The activity manpower document (AMD) for ships, squadrons, and shore establishments is an excellent source of this information. Ensure the AMD used as the source reflects current manpower requirements. The current manpower requirements should be organized by manpower type under their associated department (ship applications) or department and work center (aircraft applications). Manpower type should be identified by using the following descriptors:

1. Organizational operator
2. Operator and 0 level maintainer
3. Organizational maintainer
4. Intermediate level maintainer
5. Depot level maintainer
6. Watchstation
7. Other manpower (e.g., Operational Test and Evaluation Force (OPTEVFOR) staff, NETC instructor staff)

(b) For watchstation operators, indicate if the dedicated watchstation is required for readiness condition I through V. At shore activities, the BCS may be manned on one or more shifts. In this event, change condition I and condition III to shift 1, shift 2, or shift 3. For airborne operators indicate the operator title and the number of operators per aircraft. Deliverable: List of the various manpower types associated with the BCS by department or department and work center.

(c) Identify and record the Navywide quality and quantity of the current manpower requirements for the operation, maintenance, and support of the BCS or its components. The AMDs

for ships, squadrons, and shore establishments are an excellent source of military manpower data. For civilian skill information, Defense Civilian Personnel Data System (DCPDS) is available. The current manpower quality and quantity should be organized by manpower type and categorized as follows:

1. Officer (rank, designator, Navy officer billet classification (NOBC), or USMC equivalent)
2. Enlisted (rating, pay grade (GD), primary NEC (PNEC) or secondary NEC (SNEC) or USMC equivalent)
3. Civil Service (type, grade, series)
4. Contractor (enter type as CTR, salary range in thousands)

NOTE: Manpower quality refers to the skill and experience level of personnel. Describe any special mission requirements or constraints that affect the determination of operator manning, such as directed manning, two-man rule, etc. Deliverable: List of the manpower quantity and quality involved with the BCS.

(2) Identify BCS operator tasks.

(a) Identify and record the operator titles associated with each operator type of manpower. Identify the frequency of involvement with the BCS for each BCS operator. Frequency of involvement is the number of man-hours during peak usage conditions that the operator is involved in interacting with the BCS or its components. If the BCS or its components do not require a dedicated watchstation, describe other manning scenarios under which the equipment is operated. This may be as simple as power-on or power-off; periodic frequency changes performed by communications center watchstander; equipment operated as required by bridge personnel; or checked and adjusted by roving patrol. Deliverable: List of the operator titles associated with each BCS operator manpower type.

(b) Identify and record the specific tasks each operator of the BCS must perform and on the component it is performed. The BCS components shall be identified by work unit code (aircraft application), equipment identification codes (EIC)

(shipboard applications) or other as specified by SYSCOMS. Operator tasks are normally specified at a lower level of detail than maintenance tasks (e.g., identify aircraft, maintain aircraft tracks, enter periodic frequency change, start engine, and shift fuel pumps). Identify and record the minimum operator quality necessary to perform each task or group of tasks. Operator quality by task is best obtained from, or at least verified by, an existing operator. At a minimum, indicate rate and rating for enlisted requirements and rank and designator for officer operators. If applicable, indicate the NEC for enlisted requirements, NOBC for officers, as applicable, and series for civil service. Also indicate any special skill requirements not identified by NEC, NOBC, or MOS. Deliverable: List of tasks performed by each BCS operator title and the conditions under which they are performed.

(3) Identify BCS maintainer tasks.

(a) Identify and record the maintainer titles associated with each maintainer type of manpower. Deliverable: List of the maintainer titles associated with each BCS maintainer manpower type.

(b) Identify and record the specific organizational level corrective maintenance (CM) tasks performed by each maintainer of the BCS or its components. Identify the components of the BCS by work unit code (aviation applications) or EIC (shipboard applications). The tasks should be grouped and recorded by work unit code for aviation applications and EIC for shipboard applications. The tasks should be of a high level and correspond to the coding system of the maintenance data collection system used to record maintenance actions on the BCS or its components. In the aviation community, the action taken codes used on OPNAV 4790/60 Maintenance Action Forms and Naval Aviation Logistics Command Management Information System (NALCOMIS) shall be used as tasks. In the surface and undersea communities, the action taken codes used on OPNAV 4790/2K Ship's Maintenance Action Forms will suffice. In this manner, historical data can be extracted to determine the amount of time expended on these tasks. Deliverable: List of the organizational level CM tasks performed on the BCS.

(c) Identify and record, by work unit code or EIC, the specific organizational level preventive maintenance tasks

associated with the BCS. These tasks should be of a high level, identified as preventative maintenance tasks, and correspond to the coding system of the maintenance data collection system used to record maintenance actions on the BCS or its component under analysis. Maintenance requirement cards (MRC) are a good source of aviation preventative maintenance tasks and MIPs are a good source of preventative maintenance tasks for shipboard applications. Equipment guide lists should be used to identify quantities for use in determining total preventative maintenance workload hours. Deliverable: List of the organizational level preventative maintenance tasks performed on the BCS.

(d) Collect and record the historical organizational level CM and preventative maintenance hours associated with CM and preventative maintenance tasks of the work unit codes or EICs of the BCS. In most cases, a considerable number of ships or aircraft use the BCS being investigated. Since most equipment receives more frequent usage when at sea or on deployment, CM and preventative maintenance data collected from ships or aircraft squadrons should be for these times to ensure it reflects peak usage conditions. For aviation applications, total flight hours for the period of the historical data must also be determined. The hours expended on CM and some preventative maintenance should be expressed as man-hours per week for shipboard applications and maintenance man-hours per flight hour (MMH per FH) for aviation applications. Other kinds of preventative maintenance actions may be more appropriately expressed in terms of man-hours per day, man-hours per sortie, or other metrics. Those components of the BCS with the highest amount of maintenance hours should be flagged as high drivers. The Decision Knowledge Programming for Logistics Analysis and Technical Evaluation is the authoritative source for aviation data. NAVSEASYS COM is a suggested source for maintenance data trend analysis and verification of organizational maintenance. Deliverable: List of the historical CM and preventative maintenance hours associated with each organizational level task performed on the BCS.

(e) Identify and record the specific intermediate level CM tasks performed by each maintainer of the BCS or its components. As explained in paragraph 4b(3)(b), identify the components of the BCS by work unit code (aviation applications) or EIC (shipboard applications) using the appropriate maintenance data collection system. The tasks should be grouped and recorded

by work unit code for aviation applications and EIC for shipboard applications. Deliverable: List of the intermediate level tasks performed on the intermediated level repairable components of the BCS.

(f) Collect and record the historical intermediate level CM hours associated with the work unit codes or EICs of the BCS or its components. In most cases, a considerable number of ships or aircraft use the BCS under investigation. Since most equipment receives more frequent usage when at sea or on deployment, CM data collected from ships or aircraft squadrons should be for these times to ensure it reflects peak usage conditions. The hours expended on intermediate level CM should be determined and expressed as man-hours per week per system. Those components of the BCS with the highest amount of maintenance hours should be flagged as high drivers. FMSO is a good source of historical maintenance data for aviation and shipboard equipment. Deliverable: List of the historical CM hours associated with each intermediate level task performed on the intermediate level repairable components of the BCS.

(g) Identify and record the specific depot level CM workload associated with the BCS or its components. The workload should be expressed as man-hours per week, grouped and recorded by work unit code for aviation applications, and EIC for shipboard applications. NOTE: If the new equipment, system, or subsystem depot level maintenance will be performed at a contractor's facility, a depot level analysis may not be of any value. If necessary, this shall be evaluated on a program-by-program basis. Deliverable: List of the depot level CM workload by work unit code or EIC.

(4) Identify BCS operator training requirements.

(a) For each different operator title or qualification (officers) associated with the BCS, identify all the formal training courses required to become a qualified operator. For enlisted personnel, class "A" school should be assumed unless it is the only equipment training received. For officers, training related to the commissioning source should be assumed. Training received to obtain a designator or qualification should be identified. For enlisted and officers identify courses by course title, CIN, course length, source rating, NEC and MOS awarded, officer designator codes, and

course locations (with unit identification codes (UIC)).
Deliverable: List of the training courses required for each different BCS operator by CIN, course title, course length, source rating, NEC awarded, and course location.

(b) For each operator course, identify the following: training type, presentation environment, presentation technique, and presentation media. For each operator title, identify the training path. Deliverable: Characteristics of each operator course, e.g., the training type, presentation environment, technique, media, and training path.

(c) For each course, identify the current annual student throughput, TTE, training device, and test equipment. Deliverable: Current annual student throughput and TTE and training device requirements for each operator course.

(d) For each different operator of the BCS, identify all required in-service training. Deliverable: List of the in-service training required by each BCS operator.

NOTE: In-service training is defined as training not officially designated as a course, but having objectives and an outline and administered in a structured or scheduled manner that would require significant resources to develop. PQS, on-the-job training (OJT) handbooks, and training system utilization handbooks are examples of in-service training.

(5) Identify BCS maintainer training requirements.

(a) For each different maintainer title associated with the BCS, identify all the formal training courses required to become a qualified maintainer. Class "A" school should be assumed unless it is the only equipment training received. Identify courses by course title, CIN, course length, source rating, NEC and MOS awarded, and course locations (with UICs). Deliverable: List of the training courses required for each different BCS maintainer by CIN, course title, length, source ratings, NEC and MOS awarded, and course location.

(b) For each maintainer course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: Characteristics of each maintainer course, e.g., the training type, presentation environment, technique, media, and training path.

(c) For each course, identify the current annual student throughput, TTE, training device, and test or electronic test equipment. Deliverable: Current annual throughput and training equipment and device requirements for each maintainer course.

(d) For each different maintainer of the BCS, identify all required in-service training. Deliverable: List of the in-service training required by each BCS maintainer.

c. Determine new equipment, system, or subsystem manpower and training requirements.

(1) Identify new equipment, system, or subsystem operator requirements.

(a) Using comparability analysis, estimate and record the operator tasks that the new equipment, system, or subsystem will require. The BCS operator tasks and the new equipment, system, or subsystem preliminary data previously determined, serve as the basis for the analysis. Each BCS operator task is assessed to determine if it is unchanged, deleted or modified. Differences between the BCS and the new equipment, system, or subsystem equipment design, reliability, operability, maintainability, mission, and operating requirements shall also be considered. New tasks not required by the BCS, are also identified based on the difference data and the new equipment, system, or subsystem technology. The individual performing this task must determine if the new equipment, system, or subsystem has operator requirements as the BCS may not have operator tasks. The absence or presence of operator tasks in the BCS is not an assurance that the same will be true in the new equipment, system, or subsystem. The new equipment, system, or subsystem operator tasks should be grouped by the new equipment, system, or subsystem component with which they are associated. Deliverable: New equipment, system, or subsystem operator task list by new equipment, system, or subsystem component(s).

(b) Estimate and record the conditions of readiness, shifts, or specific missions or sorties during which the tasks are performed. Conditions of primary concern are condition I, condition III, and special conditions or shifts 1, 2, or 3. If the tasks are performed at more than one condition of readiness or shift and the manpower quality varies with each condition or shift, record the appropriate manpower quality for each condition. Estimate and record the type of manpower resources that will be required to perform the operator tasks associated with the new equipment, system, or subsystem and its components. These manpower type requirements should be referenced to the tasks they perform. Manpower type should be identified by using the following descriptors:

1. Organizational operator
2. Operator and organizational maintainer
3. Watchstation
4. Other manpower (e.g., OPTEVFOR staff, NETC instructor staff)

NOTE: For watchstation operators, indicate if the dedicated watchstation is required for readiness condition I and or III. At shore activities, the new equipment, system, or subsystem may be manned in one or more shifts. In this event, change condition I and condition III to shift 1, shift 2, or shift 3. For airborne operators, indicate the operator title and the number of operators per aircraft. Deliverable: List of manpower types required to perform new equipment, system, or subsystem operator tasks.

(c) Estimate the frequency of involvement with the new equipment, system, or subsystem for each new equipment, system, or subsystem operator. Frequency of involvement is the number of man-hours during peak usage conditions that the operator is involved in interacting with the new equipment, system, or subsystem or its components. If the new equipment, system, or subsystem or its components do not require a dedicated watchstation, describe other manning scenarios under which the equipment is operated. This may be as simple as power-on, power-off; periodic frequency changes performed by communications

center watchstander; equipment operated as required by bridge personnel; or checked and adjusted by roving patrol. Estimate and record the Navywide quality and quantity of the manpower resources required to operate the new equipment, system, or subsystem or its components. These requirements should be organized by manpower type and categorized as follows:

1. Officer (rank, designator, NOBC, or USMC equivalent)
2. Enlisted (rating, GD, PNEC or SNEC or USMC equivalent)
3. Civil Service (type, grade, series)
4. Contractor (enter type as CTR, salary range in thousands)

Deliverable: By manpower type, list of the manpower quality and quantity of new equipment, system, or subsystem operators.

(d) Determine and record the department (ship applications) or department and work center (aircraft applications) to which each manpower type will most logically be assigned. Staff manpower should also be identified and added into the department and or work center groups. Deliverable: List of the departments (ship application) or department and work centers (aircraft applications) associated with the new equipment, system, or subsystem operators.

(e) Review the operator requirements previously identified and identify any equipment design changes that could result in more efficient use of Navy and Marine Corps human resources. Apply above preceding subparagraphs 4c(1)(a) through 4c(1)(d) sub-tasks to any feasible alternative concepts or strategies identified. The goal of this task is to moderate skill requirements and limit or reduce the use of occupational specialties with high aptitude and skill requirements or with mobilization, rotation, or flow rate problems stemming from accession or retention limitations. Develop a narrative explanation of all feasible operator-manning scenarios for new equipment, system, or subsystem operators developed during the performance of this task. The explanations should detail the advantages and disadvantages of each scenario, as well as the

potential source of the operator resources (e.g., new, existing, etc.). Deliverable: Narrative summary of any design changes that would result in more efficient quality and quantity of new equipment, system, or subsystem operators.

(2) Identify new equipment, system, or subsystem maintainer requirements.

(a) Using comparability analysis, estimate and record the organizational level CM tasks that will be required by the new equipment, system, or subsystem and its components. The previously developed BCS tasks and new equipment, system, or subsystem data serve as the basis for this analysis. Applying the differences between the BCS and new equipment, system, or subsystem requirements, performance goals, standards, and concepts, each BCS maintenance task is assessed to determine if it is unchanged, deleted, or modified. Differences between the BCS and the new equipment, system, or subsystem design, reliability, operability, maintainability, mission, and operating requirements should also be considered. New tasks that are not required by the BCS are also identified based on the difference data and the new equipment, system, or subsystem technology. In some cases, the BCS may not have maintenance tasks. The absence or presence of maintenance tasks in the BCS is not an assurance that the same will be true in the new equipment, system, or subsystem. The individual performing this task must determine if the new equipment, system, or subsystem has maintenance requirements. The new equipment, system, or subsystem maintainer tasks should be grouped by the new equipment, system, or subsystem component with which they are associated. Deliverable: List of organizational level CM tasks performed on each component of the new equipment, system, or subsystem.

(b) Estimate and record the organizational level preventative maintenance tasks associated with the new equipment, system, or subsystem. These tasks should be of a high level, identified as preventative maintenance tasks, and correspond to the coding system of the maintenance data collection system that will be used to record maintenance actions on the new equipment, system, or subsystem and its components. For ship application, consult with NAVSEASYS COM prior to establishing periodicities for preventative maintenance tasks. Deliverable: List of organizational level preventative maintenance tasks performed on each component of the new equipment, system, or subsystem.

(c) Estimate and record, by new equipment, system, or subsystem component, the organizational level CM and preventative maintenance man hours that will be required to support the new equipment, system, or subsystem and its components. For aviation applications, flight hour utilization rate must be estimated. The man-hours expended on CM and some preventative maintenance should be expressed as man-hours per week for shipboard applications and MMH per FH for aviation applications. Other kinds of preventative maintenance actions may be more appropriately expressed in terms of man-hours per day, man-hours per sortie, or other metrics.

NOTE: For ship applications, CM maintenance hours are determined from a preventative maintenance to CM ratio. In these cases, the preventative maintenance hours will have to be determined first so the preventative maintenance to CM ratio can be applied. Deliverable: List of the estimated CM and preventative maintenance hours that will be associated with each organizational level task performed on each component of the new equipment, system, or subsystem.

(d) Estimate and record the type of manpower resources that will be required to perform the organizational level CM and preventative maintenance tasks associated with the new equipment, system, or subsystem and its components. These manpower type requirements should be referenced to the tasks they perform. Manpower type should be identified by using the following descriptors:

1. Operator and organizational maintainer
2. Organizational maintainer
3. Watchstation
4. Other manpower (e.g., OPTEVFOR staff, NETC instructor staff)

NOTE: For watch station operators, indicate if the dedicated watchstation is required for readiness condition I and or III. At shore activities, the new equipment, system, or subsystem may be manned on one or more watch shifts. In this event, change condition I and

condition III to shift 1, shift 2, or shift 3. Determine and record the departments (ship applications) or departments and work centers (aircraft applications) to which each organizational level CM and preventative maintenance manpower type will most logically be assigned. Staff manpower should also be identified and added into the department and or work center groups. Estimate and record the Navywide quality and quantity of the manpower resources required to perform organizational level maintenance on the new equipment, system, or subsystem or its components. These requirements should be organized by manpower type and categorized as follows:

1. Officer (rank, designator, NOBC, or USMC equivalent)
2. Enlisted (rating, GD, PNEC or SNEC, or USMC equivalent)
3. Civil Service (type, grade, series)
4. Contractor (enter type as CTR, salary range in thousands)

NOTE: Manpower quality refers to the skill and experience level of personnel. Describe any special mission requirements or constraints that affect the determination of operator manning, such as directed manning or two-man rule, etc. For those new equipment, system, or subsystem maintainers for which there is no existing NEC or job title, record the need for new NECs or job titles. Deliverable: By manpower type, list of the quality and quantity of organizational level manpower required to maintain the new equipment, system, or subsystem.

(e) Estimate and record, by new equipment, system, or subsystem component, the intermediate level CM maintenance tasks associated with the new equipment, system, or subsystem. These tasks should be of a high level and correspond to the coding system of the maintenance data collection system that will be used to record maintenance actions on the BCS. In the aviation community, the action taken codes used on OPNAV 4790/60

and NALCOMIS should be used as tasks. In the sea community, the action taken codes used on OPNAV 4790/2K will suffice.

Deliverable: List of intermediate level CM tasks performed on each component of the new equipment, system, or subsystem.

(f) Estimate and record the intermediate level CM hours associated with each task of the new equipment, system, or subsystem and its components. The estimated CM hours should be expressed as man-hours per week and reflect peak usage conditions. Deliverable: List of the estimated CM hours that will be associated with each intermediate level task performed on each component of the new equipment, system, or subsystem.

(g) Estimate and record the type of manpower resources that will be required to perform the intermediate level CM tasks associated with the new equipment, system, or subsystem and its components. These manpower type requirements should be referenced to the tasks they perform. Manpower type should be identified by using the following descriptors:

1. Operator and organizational maintainer
2. Intermediate level maintainer

NOTE: Determine and record the department (ship applications) or department and work center (aircraft applications) to which each intermediate level CM manpower type will most logically be assigned. Staff manpower should also be identified and added into the departments and or work center groups. Estimate and record the Navywide quality and quantity of the manpower resources required to perform intermediate level CM tasks on the new equipment, system, or subsystem or its components. These requirements should be organized by manpower type and categorized as follows:

1. Officer (rank, designator, NOBC, or USMC equivalent)
2. Enlisted (rating, GD, PNEC or SNEC, or USMC equivalent)
3. Civil Service (type, grade, series)

4. Contractor (enter type as CTR, salary range in thousands)

NOTE: Manpower quality refers to the skill and experience level of personnel. Describe any special mission requirements or constraints that affect the determination of intermediate level maintainer manning, such as directed manning, two-man rule, etc. For those new equipment, system, or subsystem maintainers for which there is no existing NEC, MOS or job title, record the need for new NECs or job titles. Deliverable: By manpower type, list of the quality and quantity of intermediate level manpower required to maintain the new equipment, system, or subsystem.

(h) Estimate and record, by new equipment, system, or subsystem component, the depot level CM workload associated with each component of the new equipment, system, or subsystem. The estimated CM hours should be expressed as man-hours per week. Typically, a level of repair analysis must be performed to determine the most cost effective maintenance philosophy for the new equipment, system, or subsystem. If the selected maintenance philosophy for the new equipment, system, or subsystem precludes the use of military or civil service personnel for depot level CM, performance of this sub-task will generally not be necessary. This determination will be made on a program-by-program basis. Deliverable: List of depot level CM workload associated with each component of the new equipment, system, or subsystem.

(i) Review the maintainer requirements and identify any alternative concepts or strategies that, with equipment design changes, could result in more efficient use of Navy human resources. Apply above eight sub-tasks to any feasible alternative concepts or strategies identified. The goal of this task is to moderate skill requirements and limit or reduce the use of occupational specialties with high aptitude and skill requirements or with mobilization, rotation, or flow rate problems stemming from accession or retention limitations. Deliverable: Narrative summary of any alternative equipment designs that would result in more efficient Navywide quality and quantity of new equipment, system, or subsystem maintainers.

(j) Develop a narrative explanation of all feasible maintainer-manning scenarios for new equipment, system, or subsystem maintainers developed during the performance of this task. The explanation should detail the advantages and disadvantages of each scenario as well as the potential source of the maintainer resources (e.g., new, existing, etc.).

Deliverable: Narrative explanation of all feasible maintainer-manning scenarios.

(3) Identify new equipment, system, or subsystem operator training requirements.

(a) For each different operator associated with the new equipment, system, or subsystem (subparagraph 4c(1)), determine the initial training requirements. Deliverable: List of the initial training requirements for new equipment, system, or subsystem operators.

(b) For each different operator or qualification (officers) associated with the new equipment, system, or subsystem, determine all the formal follow-on training courses that will be required to become a qualified operator. For enlisted personnel, class "A" school will be assumed unless the appropriate place for the required training is the class "A" school. For officers, training related to the commissioning source will be assumed. Training to obtain a designator or qualification should be determined. For officers and enlisted operators, estimate course titles, course lengths, source ratings, NECs and MOSS awarded (if applicable), prerequisites, and logical course locations (with UICs). Deliverable: List of courses, including titles, course lengths, source ratings, NECs awarded, prerequisites, and course locations required for each different new equipment, system, or subsystem operator.

(c) For each new equipment, system, or subsystem operator course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: The presentation environment, presentation technique, presentation media, and training path for each new equipment, system, or subsystem operator course.

(d) For each new equipment, system, or subsystem operator course, estimate the annual student throughput, TTE,

training device, and test equipment. Deliverable: The estimated annual student throughput, training equipment, device requirements, and test equipment requirements for each operator course.

(e) For each different new equipment, system, or subsystem operator, identify all required in-service training. Deliverable: List of the in-service training required by each new equipment, system, or subsystem operator.

(f) Review the operator training requirements previously identified and identify any alternative concepts or strategies that, with equipment design changes, could result in more efficient use of Navy training resources. Apply above five sub-tasks to any feasible alternative concepts or strategies identified. The goal of this task is to moderate training requirements and optimize the selection of training alternatives. As a part of this task, existing training resources should be assessed to determine their ability to support operator training needs. Develop a narrative explanation of all feasible operator training requirements for new equipment, system, or subsystem operators developed during the performance of this task. The explanation should detail the advantages and disadvantages of each training scenario as well as the potential source of training resources (e.g., new, existing, etc.). Deliverable: Narrative explanation of the new equipment, system, or subsystem operator training concept.

1. Very early in the acquisition process the new equipment, system, or subsystem concept descriptions and performance goals and standards may not provide enough detail to permit a thorough training comparability analysis. If this is the case, the analysis should be based on the BCS training requirements which appear to be appropriate in light of the new equipment, system, or subsystem concept descriptions. However, it is incumbent upon the individuals performing these tasks to update their results as more detailed information becomes available.

2. In determining the new equipment, system, or subsystem operator and maintainer training requirements, the existing training resources must be assessed to determine their ability to support the training needs of the new equipment, system, or subsystem. If the

BCS is not the predecessor equipment, system, or subsystem, then the predecessor training requirements must be determined prior to performing this task. Optional subparagraphs 4d(2) and 4d(3) tasks determine the predecessor operator and maintainer training, and training resource requirements.

3. Subparagraphs 4c(3) and 4c(4) sub-tasks are designed to produce the training requirements for the new equipment, system, or subsystem operators and maintainers. In many cases there may be more than one method of accomplishing the required training. It must be understood that the individual (i.e., the MPT analyst) performing these tasks is not limited to developing only one of these methods. Each feasible method, and their corresponding advantages and disadvantages, should have the subparagraphs 4c(3) and 4c(4) sub-tasks applied to them and the resulting requirements documented. During the early phases of the acquisition process when these tasks are performed, these alternative training methods (two minimum) will provide the preventative maintenance with a basis for trade-off analysis. Reference (t) requires a program to specifically consider embedded training and distributed learning as alternatives.

(4) Identify new equipment, system, or subsystem maintainer training requirements.

(a) For each different organizational and intermediate level maintainer associated with the new equipment, system, or subsystem, determine the initial training requirements. Deliverable: List of the initial training requirements for new equipment, system, or subsystem organizational and intermediate level maintainers.

(b) For each different maintainer associated with the new equipment, system, or subsystem, determine all the formal follow-on training courses that will be required to become a qualified maintainer. Class "A" school should be assumed unless the appropriate place for the required training is the class "A" school. Estimate course titles, course lengths, source ratings, NECs awarded (if applicable), prerequisites, and logical course locations (with UICs).

Deliverable: List of courses, including course titles, course lengths, source ratings, NECs and MOSs awarded, prerequisites, and course locations required for each different new equipment, system, or subsystem organizational and intermediate level maintainer.

(c) For each new equipment, system, or subsystem organizational and intermediate level maintainer course identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: The presentation environment, presentation technique, presentation media, and training path for each new equipment, system, or subsystem organizational and intermediate level maintainer course.

(d) For each new equipment, system, or subsystem organizational and intermediate level maintainer course, estimate the annual student throughput, TTE, training device, and test or electronic test equipment. Deliverable: The estimated annual student throughput, training equipment, device requirements, and test or electronic test equipment requirements for each organizational and intermediate level maintainer course.

(e) For each different new equipment, system, or subsystem organizational and intermediate level maintainer identified in subparagraph 4c(2) sub-task, identify all required in-service training. Deliverable: List of the in-service training required by each new equipment, system, or subsystem organizational and intermediate level maintainer.

(f) Review the maintainer training requirements previously identified and identify any alternative concepts or strategies that, with equipment design changes, could result in more efficient use of Navy and Marine Corps training resources. Apply above preceding subparagraphs 4c(4)(a) through 4c(4)(e) sub-tasks to any feasible alternative concepts or strategies identified. The goal of this task is to moderate training requirements and optimize the selection of training alternatives. As a part of this task, existing training resources should be assessed to determine their ability to support operator training needs. Develop a narrative explanation of all feasible maintainer training requirements for new equipment, system, or subsystem maintainers developed during the performance of this

task. The explanation should detail the advantages and disadvantages of each training scenario as well as the potential source of training resources (e.g., new, existing, etc.).

Deliverable: Narrative explanation of the new equipment, system, or subsystem organizational and intermediate level maintainer training concepts.

d. Determine predecessor manpower and training requirements (optional).

NOTE: This task is optional and is to be used when the BCS is not the predecessor. In order to determine which new equipment, system, or subsystem manpower and training resource requirements can be satisfied with existing resources, the existing, or predecessor, resources must first be known. Performing this task will identify the existing predecessor manpower and training resources.

(1) Identify predecessor manpower requirements.

(a) Identify and record the type of current manpower resources required for the operation, maintenance, and support of the predecessor or its components. The AMDs for ships, squadrons, and shore establishments are an excellent source of this information. The current manpower requirements should be organized by manpower type under their associated department (ship applications) or department and work center (aircraft applications). Manpower type should be identified by using the following descriptors:

1. Organizational operator
2. Operator or organizational maintainer
3. Organizational maintainer
4. Intermediate level maintainer
5. Depot level maintainer
6. Watchstation

7. Other manpower (e.g., OPTEVFOR staff). For watchstation operators, indicate if the dedicated watchstation is required for readiness condition I and or III. At shore activities, the predecessor may be manned on one or more shifts. In this event, change condition I and condition III to shift 1, shift 2, or shift 3. For airborne operators indicate the operator title and the number of operators per aircraft. Deliverable: List, by departments or departments and work centers, of the various manpower types associated with the predecessor.

(b) Identify and record the Navywide quality and quantity of the current manpower resources required for the operation, maintenance, and support of the predecessor or its components. The AMDs for ships, squadrons, and shore establishments are an excellent source of this information. The current manpower quality and quantity should be organized by manpower type and categorized as follows:

1. Officer (rank, designator, NOBC, or USMC equivalent)
2. Enlisted (rating, GD, PNEC or SNEC, or USMC equivalent)
3. Civil Service (type, grade, series)
4. Contractor (enter type as CTR, salary range in thousands)

NOTE: Manpower quality refers to the skill and experience level of personnel. Describe any special mission requirements or constraints that affect the determination of operator manning, such as directed manning or two-man rule. Staff manpower should also be identified and added into the departments and or work center groups. Deliverable: By manpower type, list of the quality and quantity of manpower involved with the predecessor.

(2) Identify predecessor operator training requirements.

(a) For each different operator title or qualification (officers) associated with the predecessor,

identify all the formal training courses required to become a qualified operator. For enlisted personnel, class "A" school should be assumed unless it is the only equipment training received. For officers, training related to the commissioning source should be assumed. Training received to obtain a designator or qualification should be identified. For enlisted and officers, identify courses by course title, CIN, course length, source rating, NEC awarded, and course locations with UIC. Deliverable: List, by CIN, including course title, course length, source rating, NEC and MOS awarded, prerequisites, and course location, of the training course(s) required for each different predecessor operator.

(b) For each predecessor operator course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: Training type, presentation environment, presentation technique, presentation media, and training path for each predecessor operator course (i.e., CIN).

(c) For each predecessor course, identify the current annual student load, TTE, training device, and test equipment. Deliverable: For each predecessor operator course (i.e., CIN), list of current annual student throughput, TTE, training device, and test equipment requirements.

(d) For each different operator of the predecessor, identify all required in-service training. Deliverable: List of the in-service training required by each predecessor operator.

(3) Identify predecessor maintainer training requirements.

(a) For each different predecessor maintainer title associated with the predecessor, identify all the formal training courses required to become a qualified maintainer. Class "A" school will be assumed unless it is the only equipment training received. Identify courses by course title, CIN, course length, source rating, NEC and MOS awarded, and course locations (with UICs). Deliverable: List, by CIN, including course title, course length, source rating, NEC awarded, prerequisites, and course location of the training course(s) required for each different predecessor maintainer.

(b) For each predecessor maintainer course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: List by each predecessor maintainer course, the training type, presentation environment, presentation technique, presentation media, and training path.

(c) For each predecessor course, identify the current annual student throughput, TTE, training device, and test equipment. Deliverable: For each predecessor maintainer course (i.e., CIN), list of current annual student throughput, TTE, training device, and test equipment requirements.

(d) For each different maintainer of the predecessor, identify all required in-service training. Deliverable: List of the in-service training required by each predecessor maintainer.

e. Identify total aircraft manpower and training requirements (optional).

(1) Identify total aircraft manpower requirements.

(a) Examine the predecessor and various Navy comparable squadrons that closely match the mission and operational scenario of the new squadron and select the type of squadron (e.g., patrol, etc.) that most closely matches. The selected squadron will be the basis against which the new squadron will be compared in order to estimate the new squadron's baseline manpower data. Using comparability analysis, identify the baseline data required to determine the non-equipment and aircrew manpower requirements for the aircraft squadron. Non-equipment and aircrew manpower requirements are determined by various formulas, algorithms, and matrices developed by NAVMAC or an individual or activity qualified in this discipline. Once the baseline data for these formulas, algorithms, and matrices are identified, the equipment related, non-equipment related, and aircrew manpower requirements should be developed by NAVAIRSYSCOM, NAVMAC or an individual or activity qualified in this discipline. Deliverable: List of baseline data for manpower formulas, algorithms, matrices, etc. The baseline data for the manpower formulas, algorithms, and matrices consists of the following:

1. Number of aircraft in squadron
2. Monthly utilization rate
3. Length of flying day
4. Length of maintenance day
5. Average sortie length
6. Workweek
7. Number of shifts
8. Seat factor
9. Crew ratio
10. Equipment workload by work center (see paragraph 4c(2)(c))

(b) Develop, with the assistance of NAVMAC or an individual or activity qualified in this discipline, an AMD for the aircraft squadron as it will ultimately be. Ensure the AMD contains the equipment-related manpower requirements developed from subparagraphs 4a through 4d tasks as well as the non-equipment and aircrew requirements. Deliverable: Preliminary squadron manpower document.

(c) Once the manpower requirements (in the AMD) are developed, determine the source (e.g., new, existing, phased-out squadrons, etc.) of the required manpower resources. Typically, the majority of the manpower resources will come from the predecessor (replaced) squadron. However, in some cases the new squadron will have more or less resources than the predecessor. During the performance of this task, ensure any excess or additional manpower resources are identified. Develop an aircraft squadron phase-in schedule. Total aircraft squadrons are typically not "stood up" all at once but phased in over a prescribed period of time resulting from equipment manufacturer production requirements. To ensure manpower and training resources (trainers, facilities, equipment, etc.) are programmed

and in place when required, a phase-in schedule must be developed as soon as possible. Deliverable: Aircraft and squadron phase-in schedule.

(2) Identify predecessor aircraft non-equipment and aircrew training requirements.

(a) For each different non-equipment (e.g., plane captain, quality assurance, safety Naval Air Training and Operating Procedures Standardization personnel, etc.) or aircrew (pilot, naval flight officer, etc.) billet title of the predecessor squadron, determine all the formal follow-on training courses that are required. Class "A" school for enlisted personnel school will be assumed unless it is the only training received. For officers, training related to the commissioning source will be assumed unless it is the only training received. Training received to obtain a designator or qualification will be identified. Determine CIN, course titles, course lengths, source ratings, source designators (officers), NECs, MOSs or NOBCs awarded (if applicable), prerequisites, and course locations (with UICs). Deliverable: List of the follow-on training courses associated with the predecessor aircraft.

(b) For each predecessor squadron non-equipment or aircrew course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: List of the presentation environment, technique and media, and training path(s) associated with the follow-on training courses of the predecessor aircraft.

(c) For each non-equipment or aircrew course, determine the annual student throughput, and identify the required TTE, training device, and test equipment. Deliverable: List of the follow-on courses annual student throughput, TTE, training device, and test equipment associated with the predecessor aircraft.

(d) For each different non-equipment or aircrew billet, identify all required in-service training. Deliverable: List of the predecessor aircraft in-service training.

(3) Identify new total aircraft training requirements.

(a) For each different non-equipment or aircrew billet title requiring training, determine the initial training requirements. Deliverable: List of the initial training requirements for the total aircraft.

(b) For each different non-equipment or aircrew billet title, determine all the formal follow-on training courses that will be required. For enlisted personnel, class "A" school will be assumed unless the appropriate place for the required training is the class "A" school. For officers, training related to the commissioning source should be assumed unless it is the appropriate place for the required training. Training to obtain a designator or qualification should be determined. For officers and enlisted operators, estimate course titles, course lengths, source ratings, NECs or NOBC awarded (if applicable), prerequisites, and logical course locations (with UICs). Deliverable: List of the follow-on training courses associated with the total aircraft.

(c) For each non-equipment or aircrew billet course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: List of the presentation environment, technique and media, and training path(s) associated with the follow-on training courses for the total aircraft.

(d) For each non-equipment or aircrew billet course, estimate the annual student throughput, TTE, training device, and test equipment. Deliverable: List of the follow-on courses annual student throughput, TTE, training device, and test equipment associated with the total aircraft.

(e) For each different non-equipment or aircrew billet, identify all required in-service training. Deliverable: List of total aircraft in-service training.

(f) Review the predecessor non-equipment or aircrew training requirements identified in subparagraphs 4e(2)(a) through 4e(2)(d) and identify any alternative concepts or strategies that, with equipment design changes, could result in more efficient use of Navy and Marine Corps training resources.

The goal of this task is to moderate training requirements and optimize the selection of training alternatives. As a part of this task, predecessor training resources will be assessed to determine their ability to support non-equipment and or aircrew training needs. Apply subparagraphs 4e(2)(a) through 4e(2)(d) tasks to any feasible alternative concepts or strategies identified. Develop a narrative explanation of all feasible non-equipment and or aircrew training requirements for the total aircraft developed during the performance of this task. The explanation will detail the advantages and disadvantages of each training scenario as well as the potential source of training resources (e.g., new, existing, etc.). Compile the equipment related training requirements (subparagraphs 4a through 4d) and the non-equipment and aircrew training requirements. Develop a narrative explanation of all feasible equipment, non-equipment, and aircrew training requirements for the total aircraft.
Deliverable: Narrative explanation of total aircraft equipment related, non-equipment related, and aircrew training requirements.

f. Identify total ship manpower and training requirements (optional).

(1) Identify total ship manpower requirements.

(a) Examine the predecessor and various Navy comparable ship classes that closely match the mission and operational scenario of the new ship and select the ship class that most closely matches. The selected ship will be the basis against which the new ship will be compared to estimate the new ship's baseline manpower data. Using comparability analysis, NAVMAC will identify the baseline data required to determine the non-equipment manpower requirements for the ship. Non-equipment manpower requirements are determined by various formulas, algorithms, and matrices developed by the NAVMAC. Once the baseline data for these formulas, algorithms, and matrices are identified, the equipment related and non-equipment related manpower requirements should also be developed by NAVMAC.
Deliverable: List of baseline data for manpower formulas, algorithms, matrices, etc. The baseline data for the manpower formulas, algorithms, and matrices consists of the following:

1. Staffing standards
2. Directed functions
3. Workweek
4. Watchstations
5. Battle bill watchstation titles
6. Equipment preventative maintenance values
(see subparagraph 4c(2)(c))
7. Equipment CM ratios (see subparagraph
4c(2)(c))
8. Facility maintenance manpower factors (e.g.,
production delay, support actions, etc.)

(b) Develop, with the assistance of NAVMAC or an individual or activity qualified in this discipline, a preliminary ship manpower document for the new ship as it will ultimately be. Ensure the preliminary ship manpower document contains the equipment related manpower requirements developed from subparagraphs 4a through 4d tasks as well as the non-equipment requirements. Deliverable: Preliminary ship manpower document.

(c) Once the manpower requirements are developed, determine the source (e.g., new, existing, phased-out ship, etc.) of the required manpower resources. Typically, the majority of the manpower resources will come from the predecessor (replaced) ship. However, in some cases the new ship will have more or less resources than the predecessor. During the performance of this task, ensure any excess or additional manpower resources are identified. Develop or obtain a crew scheduling and phasing plan. Total ship classes are typically not "stood up" all at once but phased in over a prescribed period of time resulting from equipment manufacturer production requirements. To ensure manpower and training resources (trainers, facilities, equipment, etc.) are programmed and in place when required, a phase-in schedule must be developed as soon as possible. Deliverable: Crew scheduling and phasing plan.

(2) Identify predecessor ship non-equipment training requirements.

(a) For each different non-equipment billet title of the predecessor ship, determine all the formal follow-on training courses that are required. Class "A" school for enlisted personnel will be assumed unless it is the only training received. For officers, training related to the commissioning source will be assumed unless it is the only training received. Training received to obtain a designator or qualification will be identified. Determine CIN, course titles, course lengths, source ratings, source designators (officers), NECs or NOBCs awarded (if applicable), prerequisites, and course locations (with UICs). Deliverable: List of the follow-on training courses associated with the predecessor ship.

(b) For each predecessor ship non-equipment course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: List of the presentation environment, technique and media, and training path(s) associated with the follow-on training courses of the predecessor ship.

(c) For each non-equipment course, determine the annual student throughput, TTE, training device, and test equipment. Deliverable: List of the annual student throughput, TTE, training device, and test equipment associated with the follow-on training courses of the predecessor ship.

(d) For each different non-equipment billet of the predecessor ship, identify all required in-service training. Deliverable: List of the in-service training associated with the predecessor ship.

(3) Identify new equipment, system, or subsystem total ship training requirements.

(a) For each different new equipment, system, or subsystem non-equipment billet title requiring training, determine the initial training requirements. Deliverable: List of the initial training requirements for the total ship.

(b) For each different new equipment, system, or subsystem non-equipment billet title, determine all the formal follow-on training courses that will be required. For enlisted personnel, class "A" school will be assumed unless the appropriate place for the required training is the class "A" school. For officers, training related to the commissioning source will be assumed unless it is the appropriate place for the required training. Training to obtain a designator or qualification will be determined. For officers and enlisted operators estimate course titles, course lengths, source ratings, NECs or NOBC awarded (if applicable), prerequisites, and logical course locations (with UICs). Deliverable: List of the follow-on training courses associated with the total ship.

(c) For each new equipment, system, or subsystem non-equipment billet course, identify the following: training type, presentation environment, presentation technique, presentation media, and training path. Deliverable: List of the presentation environment, presentation technique, presentation media, and training path(s) associated with the follow-on training courses for the total ship.

(d) For each new equipment, system, or subsystem non-equipment billet course, estimate the annual student throughput, TTE, training device, and test or electronic test equipment. Deliverable: List of the annual student throughput, TTE, training device, and test equipment associated with the follow-on training courses for the total ship.

(e) For each different new equipment, system, or subsystem non-equipment billet, identify all required in-service training. Deliverable: List of the in-service training associated with the total ship.

(f) Review the predecessor non-equipment training requirements identified in subparagraphs 4f(2)(a) through 4f(2)(d) tasks and identify any alternative concepts or strategies that, with equipment design changes, could result in more efficient use of Navy training resources. The goal of this task is to optimize both training requirements and the selection of training alternatives. As a part of this task, predecessor training resources (subparagraph 4f(2) task) should be assessed to determine their ability to support non-equipment training needs. Apply subparagraphs 4f(2)(a) through 4f(2)(d) tasks to

any feasible alternative concepts or strategies identified. Develop a narrative explanation of all feasible non-equipment training requirements for the new equipment, system, or subsystem (total ship) developed during the performance of this task. The explanation should detail the advantages and disadvantages of each training scenario as well as the potential source of training resources (e.g., new, existing, etc.). Compile the equipment related training requirements (subparagraphs 4a through 4d) tasks) and the non-equipment training requirements. Develop a narrative explanation of all feasible equipment and non-equipment training requirements for the total ship. Deliverable: Narrative explanation of all feasible equipment related and non-equipment related training requirements for the total ship.

g. Develop preliminary NTSP (parts I, V and VII) as identified in enclosure (3). This task consists of documenting the manpower and training requirements developed in previous tasks. The format for this documentation is parts I, V and VII of the NTSP as structured in enclosure (3) of this instruction. Deliverable: Preliminary (part I, appendix A, POA&M, and appendix B, points of contact NTSP.

NAVY TRAINING SYSTEMS PLAN FORMAT

1. Purpose. Provide the format and information required to develop the NTSP. NTSP developers must justify any data elements deemed to be "not applicable."
2. Background. The effectiveness of the NTSP depends on timely requirements development, validation, and implementation. The objectives support program management requirements by developing an effective and time phased training program.
3. Process. The PM conducts the FEA and training requirements planning processes to develop the MPT requirements for a new or modernized acquisition system and documents these requirements in a seven-part NTSP.
4. Procedure. The sequential outline of the format follows:

a. Number pages by parts such as I-1, I-2, etc. Ensure NTSP number, when assigned, appears on every page of the document on the upper right hand corner followed by the date of the NTSP. Information that does not apply shall be marked "Not Applicable" stating why. The resource sponsor shall assign a unique identification number prior to beginning a new NTSP. The document identification number is alphanumeric for example:

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N97 -NTSP -S -20 -13 01 A
    |      |      |      |      |      |
    |      |      |      |      |      L Sequential Update Letter
    |      |      |      |      |      L FY Sequential Number by Category
    |      |      |      |      |
    |      |      |      |      |      L FY Designator
    |      |      |      |
    |      |      |      L Category (00-General 10-Non-Hardware
    |      |      |      | 20-Undersea 30-Surface 40-Logistic
    |      |      |      | 50-Aviation 60-Reserve
    |      |      |      | 70-Information Dominance 80-Other)
    |      |      |
    |      |      L PM Letter Designator (A-NAVAIRSYSCOM,
    |      |      | E-SPAWARSYSCOM, F-NAVFACENGCOM, P-PEO,
    |      |      | S-NAVSEASYSYSCOM, K-NAVSUPSYSCOM, X-OTHER)
    |      |
    |      L Document Type (NTSP, TTE, TEEP, MC)
    |
    L Resource Sponsor (Various)

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b. Develop and update the seven parts of the NTSP using the detailed instructions and format in the following template.

5. NTSP Template

COVER PAGE. Include title, NTSP identification number and document date.

EXECUTIVE SUMMARY. Include an executive summary of the NTSP. In the case of a ship "class" NTSP, provide a description of the applicability and relationship to the sub-system NTSPs. Describe the new development in general terms highlighting the new features, operational uses, system(s) or equipment replaced, maintenance concepts, interim support requirements, types of manpower to operate and maintain the new development, and the training concept. Identify the ACAT, the current acquisition phase of life cycle the program has achieved, and when the next acquisition MS will be reached. Identify deltas between previous and new MPT requirements. Identify RFT dates (of new courses) and system IOC dates with system photograph (if desired).

1. Table of Contents
2. List of Acronyms. Limit acronyms to those used more than once. Abbreviations may be listed if they are needed for clarification.
3. Preface. Identify the date of the last NTSP update and describe what impacts to MPT have occurred since the last update of the document. Indicate any NTSP that will be superseded or incorporated into this NTSP. Include the NTSP annual review date, participants, and results. Annotate the requirements officer and PM concurrences to begin the update because of the annual review. Include those outstanding part VI action items from the prior iteration.
4. Title-Nomenclature-Acronym. Specify the proposed or actual program title, equipment and nomenclature(s), and acronym if applicable.
5. Program Element. Specify the funding program element number(s) for acquisition and sustainment, as applicable.

Section I.B. SECURITY CLASSIFICATION. Provide a security classification of the following:

1. System Characteristics (select one): UNCLASS (for "unclassified"), CONF (for "confidential"), SECRET, TOP SECRET.
2. Capabilities (select one): UNCLASS, CONF, SECRET, TOP SECRET.
3. Functions (select one): UNCLASS, CONF, SECRET, TOP SECRET

Section I.C. NTSP PRINCIPALS. List and identify the principals and their organizational codes to the division level. Principals are designated to ensure support of the new development, review and validate the NTSP, address and resolve issues, and make decisions to ensure the training plan can be executed. As applicable:

OPNAV Resource Sponsor(s).....CNO (NX)
Marine Corps Program Sponsor.....CMC (XXX)
(as applicable)
PM.....SYSCOM (XXX)
TAe.g., NETC, USFLTFORCOM, etc
Training support agency.....SYSCOM (XXX)
Deputy Chief of Naval Operations for Manpower Personnel
Training and Education.....DCNO (N1)
Commander, Naval Air Reserve Force.....(Code XXX)
(as applicable)
Commander, Naval Surface Reserve Force.....(Code XXX)
(as applicable)
CMC Manpower Management (as applicable)(Code XXX)

Section I.D. SYSTEM DESCRIPTION

1. Operational Uses. Describe the tactical use of the new development or reserve component program. Provide a statement of purpose, employment, mission, and use consistent with the JCIDS documents, where applicable, and compatible with recipient platform required operational capability and projected operational environment. A basic overview can be provided along with references to other documents that contain operational uses.

2. Other Procurement. Indicate whether the new development will be procured for foreign military sales (FMS) or by other sources (Coast Guard, Army, and Air Force).

Section I.E. DEVELOPMENTAL TEST (DT) and OPERATIONAL TEST (OT)

1. DT and OT Not Completed. Identify POA&M and timeframes for DT and OT. State if non-developmental item or COTS acquisitions require no tests or evaluations. If needed, refer to element III.A.1 for any initial training required for DT and OT.

2. DT and OT Completed. State the timeframe, and results of any findings or recommendations affecting MPT. Refer to other program documentation as appropriate.

Section I.F. SHIP, AIRCRAFT OR EQUIPMENT, SYSTEM, OR SUBSYSTEM REPLACED. Identify, in detail, the ship, aircraft, or equipment, system, or subsystem being replaced. This is also applicable to modernization and or backfit programs. Indicate if no ship, aircraft, or equipment, system, or subsystem is being replaced.

Section I.G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. Provide a functional description of the new development or reserve program. Avoid technical terms, unnecessary specifications, and detail beyond that needed to grasp the functional aspects of the new development. For Reserve Component Program NTSPs, provide a general description of external and internal organizational structure and functions of the reserve program units.

2. Physical Description. Provide a physical description of the new development such as the dimensions, weight, location on ship, deck spotting factor, etc.

3. New Development Introduction. Describe the introduction of the new development such as new production, product improvement program, modernization retrofit, and service life extension program (SLEP).

4. Significant Interfaces. Describe the significant interfaces with and impacts on other new developments or reserve

programs (e.g., chilled water; maintenance responsibilities shift; requirements for special or additional power supply; hull mechanical and electrical; and networks).

5. New Features, Configurations, or Material. Identify new features, configurations, and material changes such as changes in technology, state-of-the-art, environmental protection, and electromagnetic compatibility, if any.

Section I.H. CONCEPTS

1. Operational Concept. Provide a general explanation concerning how the new development operates, such as unmanned or unmonitored, number of operators, watch condition, existing watch sharing or monitor relationships, and who will operate it. When the new development does not require watch station manning for operation, describe the operational concept in terms of existing watch organization, time shared with other watch station(s), responsibility for monitoring system operation, or other special purpose operations. As necessary, address operational concepts associated with battle force, joint service, forward deployed Navy force, forward deployed rotational manning, and or connectivity requirements, etc. List states and modes of operation.

2. Maintenance Concept. Describe briefly how the equipment will be maintained at the organizational level (e.g., replace the entire unit when it malfunctions, repair to the component level, replace circuit boards and return faulty ones to supply). Does it have a self-test capability, diagnostic capability, built in test equipment, or require special test equipment? Will maintenance concept support the Micro-Miniature Program? Describe briefly what maintenance actions, if any, are planned for the intermediate maintenance activity and depot level (e.g., all repairs, refurbishment of rotatable pool items, only problems the organizational level cannot solve, specified complex procedures such as alignment etc.). Include whether supported by condition based maintenance and or remote monitoring.

a. Organizational. Describe what maintenance is performed, applicable work center, and what rating and NEC and

MOS maintains the new development. Specifically, describe the preventive maintenance, planned maintenance and CM for the new development addressed.

(1) Preventive and Planned Maintenance. Describe the actions performed in response to a scheduled requirement as per MRCs, systematic inspections, or servicing. Include the planned maintenance system (PMS) hours associated with the new equipment or system broken down by a weekly and quarterly basis.

(2) CM. Describe the fault isolation, removal, and replacement of weapon replaceable assembly (WRA), shop replaceable assembly (SRA), and lowest replaceable assembly. Provide any details if limited intermediate maintenance on mission essential equipment may be performed when deployed.

b. Intermediate. Describe if intermediate level maintenance is required on those WRAs and SRAs beyond the organizational level capability. Include any differences between ashore and afloat activities. Particularly, describe which support equipment is used for each subsystem such as automatic test equipment, common support equipment and peculiar support equipment.

c. Depot. Identify how and where major overhaul, rebuilding, manufacture, modifications, etc. will be accomplished.

d. Interim Maintenance. Identify the sources of technical assistance such as aviation intermediate maintenance depot, naval aircraft depot, contractor engineering and technical services or civilian augmented training. Define the interim maintenance concept until full Navy organic support is achieved. Provide the Navy support date and identify requirements for technical and or advisory services for operational activities, and the reserve program component. State the location, number of personnel, scope and duration of the requirement.

e. Life Cycle Maintenance Plan. Include a statement on the life cycle maintenance plan such as complex overhaul, regular overhaul or restricted availability.

3. Manning Concept. Provide a specific statement regarding the manning concept for the new weapons system to include a summary of the total Navy and Marine Corps officer, enlisted, civilian, and contractor manpower requirements and the summary organizational structure, including rotational crewing, forward deployed Navy and Marine Corps forces, and forward stationed units. Include a specific statement which describes all unique constraints, criteria, or requirements to include any unique testing unit or training unit manpower and personnel requirements. Provide a specific statement of factors governing the manpower requirements for the new development or reserve program component such as conditional watches, maintenance requirements, minimum manning, special watch conditions, or mobilization requirements. Document any new development drivers such as the need for any additions, deletions, or mergers of ratings, changes in occupational standards, or changes in NEC and MOS descriptions that may result in an increase or decrease to manpower and personnel requirements.

4. Training Concept. An explanation of the types of training applicable to military, civilian and foreign personnel. Maintenance training should correspond to requirements for organizational, intermediate and depot level maintenance under section I.H.2.

a. Initial Training. List information only for the applicable methods of training, such as operator, maintenance, team, proficiency, officer, industrial, etc.

(1) List courses and applicable prerequisite training.

(2) List and describe the purpose of any TTE and training device to be used in each course and reference element IV.A.1 for TTE and element IV.A.2 for training device detailed information, respectively.

(3) Describe how the operator and maintainer tasks relate to the training objectives and how they form the basis for developing the overall training strategy.

(4) Identify how the training shall be conducted such as team, inter-Service, skill progression training, factory, industrial, formal, unit, exportable, consolidated, off

site, or electronic-based training and distance learning. In addition, for reserve program units, provide a concise statement of how enlisted and officer mobilization and professional training requirements will be accomplished and the method used, such as unit consolidation, exportable, contract, active duty training, and inactive duty training travel (IDTT).

b. Follow-on Training. List information only for the applicable methods of training, such as operator, maintenance, team, proficiency, officer, industrial, etc. Include RFT date.

(1) List courses and applicable prerequisite training.

(2) List and describe the purpose of any TTE and training device to be used in each course and reference element IV.A.1 for TTE and element IV.A.2 for training device detailed information, respectively.

(3) Describe how the operator and maintainer tasks relate to the training objectives and how they form the basis for developing the overall training strategy.

(4) Identify how the training shall be conducted such as team, inter-Service, skill progression training, factory, industrial, formal, unit, exportable, consolidated, off site, or electronic-based training and distance learning. In addition, for reserve program units, provide a concise statement of how enlisted and officer mobilization and professional training requirements will be accomplished and the method used, such as unit consolidation, exportable, contract, active duty training, and inactive duty training travel (IDTT).

c. Student Profiles. List the source rating, prerequisite skill and knowledge requirements, NECs, and MOSs required to support the new development.

d. Training Pipelines. Provide a graphic illustration of new training pipelines or tracks. Include existing training tracks and indicate necessary changes to student profiles (e.g., list the source rating, prerequisite skill and knowledge requirements, and NECs and MOSs required to support the new development). When only a single course must be established (no

training track is required), so state. Indicate new NEC or MOS requirements or if an existing NEC or MOS is to be changed.

e. Total Ship Billet Training Profile (BTP). Provide a BTP for each officer and enlisted billet-by-billet title, rank, rate, rating, NOBC, PNEC, SNEC. Also include assigned department or division, condition I or III watchstations, sequential list of new or modified skill progression, new or modified functional training courses title, CIN, course data processing code, location, and length in days.

f. Reserve Component Program BTP. Provide a BTP for each officer and enlisted billet in the reserve program as an annex to the NTSP. In the BTP, include the active grade or rating, NOBCs, PNECs, SNECs, MOS mobilization billet title, list of length in days, frequency, point values for completion of training, and remarks as applicable.

g. Aviation and Crew Scheduling and Phasing Plan. A phasing plan for each ship or aircraft squadron must be developed. The phasing plan is an appendix to the NTSP, published under separate cover, and is required for the orderly manning of new construction and modernized ships and aviation squadrons. The lead phasing plan will be forwarded to the resource sponsor for endorsement and on to the DCNO (N1) for approval. Each follow-on phasing plan will be approved by the resource sponsor with copy to DCNO (N1) for concurrence. The phasing plan will be issued 15 months prior to the arrival of the first increment and reviewed quarterly for possible update due to schedule changes. The PM is responsible for the preparation and update of the phasing plan with assistance from the Chief of Naval Personnel, the TA, and the TYCOM. The phasing plan is considered cancelled upon arrival of the final increment. The phasing plan will include ship and aircraft delivery by FY and month; the preliminary ship manpower document, preliminary squadron manpower document, and AMD billet sequence number (if approved), rank, rate, or rating, NOBC, PNEC, SNEC, primary MOS (PMOS) and secondary MOS (SMOS) authorized, and increment identification; their respective reporting date; and the sequence of required new or modified courses for each billet and the respective convening schedules. Schedule courses to minimize delay time between the completion of one course and the convening date of the subsequent course.

In the event the delay exceeds 30 calendar days, the TA shall be advised to determine if alternative convening dates could be established.

Section I.I. ON BOARD (IN-SERVICE) TRAINING. Identify on board training or in-service training to be provided such as: PQS, electronic-based training, computer based training, interactive courseware, distance learning, embedded training, pre- and post-delivery crew watchstanding training.

1. Proficiency or Other Training Organic to the New Development. Describe how training will be accomplished and the instructional system or media supporting the requirement. Identify training support agency and date required by month and year.

2. PQSs. List the operator, crew, and watch station PQS requirements. Identify training support agency and date required by month and year.

3. Other On Board and In-service Training Packages. List, as appropriate, any other formal training curricula and the date required by month and year.

Section I.J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers. List the name, address, contract numbers, and location for manufacturer(s) or shipbuilder(s) of the new development(s).

2. Program Documentation. Include the status of technical documents that support the new development or reserve program, if required, such as JCIDS documents, and integrated logistics support plan (ILSP).

3. Technical Data Plan. Include any requirement for technical manuals, MRCs, MIPs, PMS, or plans applicable to the new development such as status, type of manual or plan, medium, delivery dates. Do not duplicate element IV.B.3 data. Reference element IV.B.3 as appropriate.

4. Test Sets, Tools, and Test Equipment. Include any unique requirement for special test sets, special tools, special test equipment, and software support for new development operational and training activities.

5. Repair Parts. Include any requirement for new development spare and repair parts as well as the material support date.

6. HSI. Include the status of the HSI plan and any manpower and training KPPs or key system attributes. The HSI plan establishes the basis for effective integration of human factors engineering, manpower, personnel, training, survivability, safety, habitability, and occupational health, considerations into the acquisition of the new development.

Section I.K. SCHEDULES

1. Schedule of Events. Include all schedules pertinent to satisfying training objectives through definitive milestones. Indicate source and dates of information such as task analysis completion dates, IOC through full operational capability dates, training need dates, RFT dates, delivery commencement dates, system deployment dates, facility beneficial occupancy dates, facility ready for use (RFU) dates, and training equipment availability dates. List the rate of units per month and year, name and location of existing reserve units and activation dates of planned units, and ship number and date (month and year) if the equipment, system, or subsystem is being installed on a new ship, and production delivery, commissioning, acceptance trials, etc.

a. Installation and Delivery Schedule. List the ship availability dates and or installations by location and the installation date(s) by FY or by quarter per FY as appropriate.

b. Ready For Operational Use Schedule. List for each activity the ready for operational use date(s) by FY or by quarter per FY as appropriate. This schedule is the basis for element II.A.1.a. The ready for operational use for an aircraft squadron will coincide with the delivery of the first aircraft to the squadron.

c. Time Required to Install at Operational Sites. Time required to install and complete equipment installation at different sites, (e.g., new construction at builder site, replacement during restricted availability, SLEP, and overhaul, etc.).

2. FMS and Other Source Delivery Schedule. List the country, the date by FY or by quarter per FY as appropriate, and where the new development will be delivered.

Section I.L. GOVERNMENT FURNISHED EQUIPMENT (GFE) AND CONTRACTOR FURNISHED EQUIPMENT (CFE) TRAINING REQUIREMENTS. Identify all GFE and CFE categories. For total ship NTSPs, show sub-division within each category by major area such as hull, propulsion, deck, combat systems, and communications for the new development.

1. GFE and CFE Training Requirements. For total ship (class) NTSPs, list identification code such as shipboard work breakdown structure, ship system identification code, equipment nomenclature and quantity, and software configuration. Also include a list of acquisition sources, such as contractor, project office, participating manager, status code, course, and NTSP number. Include rating, NOBC, PNEC, and SNEC required per new development or reserve program. Indicate in remarks if training is available in time and whether or not the capacity exists to accommodate new development requirements.

2. Use the following format:

GFE AND CFE EQUIPMENT TRAINING REQUIREMENTS

<u>IDENT</u> <u>NUMBER</u>	<u>EQUIP</u> <u>NAME</u>	<u>QTY</u>	<u>ACQ</u> <u>SOURCE</u>	<u>COURSE/</u> <u>STATUS</u>	<u>NTSP</u> <u>NUM-</u> <u>BER</u>	<u>NOBC</u> <u>PNEC</u> <u>SNEC</u>	(NOTE 1)
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<u>ABBREVIATIONS</u>	<u>WORD</u>
IDENT	identification
EQUIP	equipment
QTY	quantity
ACQ	acquisition

NOTE 1: The status of the training requirement for each piece of equipment will be identified by using one of the following codes:

<u>STATUS CODES</u>	<u>DEFINITIONS</u>
FDR	further definition required
EC	existing course
POEC	part of existing course
ND	new development
ESC	existing segmented course
NSC	new segmented course
NFTR	no formal training required
ECR	existing course reserve
PSC	planned segmented course

Section I.M. RELATED NTSPs, TEEPs, AND OTHER APPLICABLE DOCUMENTS. List of sub-system NTSPs, training system TEEPs, and other documents which affect, are related to, were used to develop, or were developed in response to this NTSP. Provide the document title, number, cognizant PM code, and status of the document. Use the following format:

<u>DOCUMENT/NTSP TITLE</u>	<u>DOCUMENT/NTSP NUMBER</u>	<u>PM CODE</u>	<u>STATUS</u>
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PART II - BILLET AND PERSONNEL REQUIREMENTS

Section II.A. BILLET REQUIREMENTS

Element II.A.1.a. Operational and Fleet Support Activity Activation Schedule

SOURCE: _____ DATE: _____

<u>ACTIVITY, UIC</u>	<u>PFYs</u>	<u>CFY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>TOTALS:</u>
	=====	=====	=====	=====	=====	=====	=====

INSTRUCTIONS:

- (1) List the source and date of the schedule.
- (2) List the operational and fleet support activities and corresponding UICs.

(3) Under previous fiscal years (PFY), indicate the number of activities activated in previous years. Under current fiscal year (CFY), indicate the number of activities activated in the CFY. Under the remaining columns, indicate the number of activities activated in the next 8 FYs.

NOTE: Tailor format to meet 8 FY requirements.

(4) For NTSPs with multiple new development installations, site totals may be used along with a note explaining the situation.

NOTE: The figures displayed on this element reflect total sites or activities, not the actual number of equipment. For equipment, system, or subsystem NTSPs, the figures displayed on this element reflect total sites or activities receiving the equipment, system, or subsystem.

Element II.A.1.b. Billets Required for Operational and Fleet Support Activities

<u>ACTIVITY, UIC, PHASING</u> <u>INCREMENT</u>	<u>BILLETS</u> <u>ENL/</u> <u>OFF/CIV</u>	<u>DESIGNATOR</u> <u>RATING</u>	<u>PNEC/SNEC</u> <u>PMOS/SMOS</u> <u>PP/SERIES/GD</u>
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ACTIVITY TOTALS:

<u>ABBREVIATIONS</u>	<u>WORD</u>
ENL	enlisted
OFF	officer
CIV	civilian

INSTRUCTIONS:

(1) List the operational and fleet support activities, corresponding UICs, and phasing increment (if applicable). When an activity's billets are phased in over multiple FYs, list each FY as a phasing increment.

(2) List the number of billets required by officer rank and designator, enlisted rank and rating, and NEC or MOS, and civil service pay plan (PP) (e.g., General Schedule or wage grade), occupational series code and GD. List totals for each activity (including all phasing increments). For total aircraft and

total ship NTSPs, reference the applicable manpower document in lieu of listing the detailed billet data in this element. Include preliminary manpower documents as appendices to the NTSP.

(3) Manning shall be based on workload and not a unit-manning document. Actual partial and fractional billet requirements will be rounded up to ensure new systems do not exceed the workload of legacy systems.

Element II.A.1.c. Total Billets Required for Operational and Fleet Support Activities

DESIGNATOR	PNEC/SNEC	PFYs	CFY____	FY____	FY____	FY____	FY____
RATING	PMOS/SMOS	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF
	PP/SERIES/GD	CIV	CIV	CIV	CIV	CIV	CIV

OPERATIONAL ACTIVITIES - Active Duty (ACDU)
OPERATIONAL ACTIVITIES - Full Time Support Navy (FTS)
OPERATIONAL ACTIVITIES - Selected Reserves Navy (SELRES)
OPERATIONAL ACTIVITIES - Active Duty Marine (AD)
OPERATIONAL ACTIVITIES - Active Reserve Marine (AR)
OPERATIONAL ACTIVITIES - Selected Marine Corps Reserve (SMCR)
OPERATIONAL ACTIVITIES - Civilian
FLEET SUPPORT ACTIVITIES - ACDU
FLEET SUPPORT ACTIVITIES - FTS
FLEET SUPPORT ACTIVITIES - SELRES
FLEET SUPPORT ACTIVITIES - AD
FLEET SUPPORT ACTIVITIES - AR
FLEET SUPPORT ACTIVITIES - SMCR
FLEET SUPPORT ACTIVITIES - Civilian

	PFYs	CFY____	FY____	FY____	FY____	FY____
	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF	ENL/ OFF
SUMMARY TOTALS:	CIV	CIV	CIV	CIV	CIV	CIV

OPERATIONAL
 ACDU
 FTS
 SELRES
 AD
 AR

SMCR
Civilian

FLEET SUPPORT
ACDU
FTS
SELRES
AD
AR
SMCR
Civilian

GRAND TOTALS:
ACDU
FTS
SELRES
AD
AR
SMCR
Civilian

INSTRUCTIONS:

(1) List the operational and fleet support billets required by officer rank and designator, enlisted rank or rating and NEC or MOS, and civil service PP, occupational series code, and GD for each FY by ACDU, FTS, or SELRES for Navy, AD, AR, or SMCR for USMC, or by civilian. Compute requirements by multiplying element II.A.1.a. by element II.A.1.b. For total aircraft and total ship NTSPs, reference the applicable manpower document in lieu of listing billet data in this element. Indicate the required billets under the appropriate column as follows:

(a) Under PFYs, list the cumulative billets required in all previous FYs.

(b) Under CFY, list the billets required in the current FY.

(c) Under the remaining columns, list the billets required for each of the next 8 FYs.

(2) Include preliminary manpower documents as annexes to the NTSP.

(3) Under summary totals, provide totals as indicated.

(4) Under grand totals, provide totals as indicated.

NOTE: Do not lump together all out year billet figures as the eighth and final FY billet total for this element; list only the fifth FY total.

Element II.A.2.a. Operational and Fleet Support Activity
Deactivation Schedule

SOURCE: _____ DATE: _____

<u>ACTIVITY, UIC</u>	<u>PFYS</u>	<u>CFY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>TOTALS:</u>

INSTRUCTIONS:

(1) List the source and date of the schedule.

(2) List the operational and fleet support activities and corresponding UICs.

(3) Under PFYS, indicate the number of activities deactivated in previous years. Under CFY, indicate the number of activities deactivated in the current FY. Under the remaining columns, indicate the number of activities deactivated in the next 8 FYs.

(4) For NTSPs with multiple deactivations, site totals may be used along with a note explaining the situation.

NOTE: The figures displayed on this element reflect total sites or activities, not the actual number of equipment. For equipment, system, or subsystem NTSPs, the figures displayed on this element reflect total sites or activities no longer employing the identified equipment, system, or subsystem.

Element II.A.2.b. Billets to Be Deleted in Operational and Fleet Support Activities

<u>ACTIVITY, UIC,</u> <u>PHASING</u> <u>INCREMENT</u>	<u>BILLETS</u> <u>ENL/</u> <u>OFF CIV</u>	<u>DESIGNATOR</u> <u>RATING</u>	<u>PNEC/SNEC</u> <u>PMOS/SMOS</u> <u>PP/SERIES/GD</u>

ACTIVITY TOTALS:

INSTRUCTIONS:

(1) List the operational and fleet support activities, corresponding UICs, and phasing increment (if applicable). When an activity's billets are phased out over multiple FYs, list each FY as a phasing increment.

(2) List the number of billets to be deleted by officer rank and designator, enlisted rank or rating and NEC or MOS, and civilian PP, occupational series code, and GD. List totals for each activity (including all phasing increments). For total aircraft and total ship NTSPs, reference the applicable manpower document in lieu of listing the detailed billet data in this element.

Element II.A.2.c. Total Billets to Be Deleted in Operational and Fleet Support Activities

		PFYs	CFY____	FY____	FY____	FY____	FY____
	PNEC/SNEC	ENL/	ENL/	ENL/	ENL/	ENL/	ENL/
DESIGNATOR	PMOS/SMOS	OFF	OFF	OFF	OFF	OFF	OFF
<u>RATING</u>	<u>PP/SERIES/GD</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>

OPERATIONAL ACTIVITIES - ACDU
OPERATIONAL ACTIVITIES - FTS
OPERATIONAL ACTIVITIES - SELRES
OPERATIONAL ACTIVITIES - AD
OPERATIONAL ACTIVITIES - AR
OPERATIONAL ACTIVITIES - SMCR
OPERATIONAL ACTIVITIES - Civilian
FLEET SUPPORT ACTIVITIES - ACDU
FLEET SUPPORT ACTIVITIES - FTS
FLEET SUPPORT ACTIVITIES - SELRES
FLEET SUPPORT ACTIVITIES - AD
FLEET SUPPORT ACTIVITIES - AR
FLEET SUPPORT ACTIVITIES - SMCR
FLEET SUPPORT ACTIVITIES - Civilian

	PFYs	CFY____	FY____	FY____	FY____	FY____
	ENL/	ENL/	ENL/	ENL/	ENL/	ENL/
	OFF	OFF	OFF	OFF	OFF	OFF
SUMMARY TOTALS:	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>

OPERATIONAL
ACDU
FTS
SELRES
AD
AR
SMCR
Civilian

FLEET SUPPORT
ACDU
FTS
SELRES
AD
AR
SMCR
Civilian

GRAND TOTALS:
ACDU
FTS
SELRES
AD
AR
SMCR
Civilian

INSTRUCTIONS:

(1) List the operational and fleet support billets to be deleted by officer rank and designator, enlisted rank or rating and NEC or MOS, and civil service PP, occupational series code, and GD for each FY by ACDU, FTS, and SELRES for Navy; AD, AR, and SMCR for USMC; and civilian. Compute requirements by multiplying element II.A.2.a. by element II.A.2.b. For total aircraft and total ship NTSPs, reference the applicable manpower document in lieu of listing billet data in this element. Indicate the billets under the appropriate column as follows:

(a) Under PFYs, list the cumulative billets deleted in all previous FYs.

(b) Under CFY, list the billets to be deleted in the current FY.

(c) Under the remaining FY__ columns, list the billets deleted for each of the next 8 FYs.

(2) Under summary totals, provide totals as indicated.

(3) Under grand totals, provide totals as indicated.

NOTE: Do not lump together all out year billet figures as the fifth and final FY billet total for this element.

Element II.A.3. Training Activities Instructor and Support Billet Requirements Instructor Billets

INSTRUCTOR BILLETS

TRAINING ACTIVITY, LOCATION, UIC:

		PFYs	CFY__	FY__	FY__	FY__	FY__
	PNEC/SNEC	ENL/	ENL/	ENL/	ENL/	ENL/	ENL/
DESIGNATOR	PMOS/SMOS	OFF	OFF	OFF	OFF	OFF	OFF
<u>RATING</u>	<u>PP/SERIES/GD</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>

ACDU
FTS
SELRES
AD
AR
SMCR
Civilian
Total:

SUPPORT BILLETS

TRAINING ACTIVITY, LOCATION, UIC:

		PFYs	CFY__	FY__	FY__	FY__	FY__
	PNEC/SNEC	ENL/	ENL/	ENL/	ENL/	ENL/	ENL/
DESIGNATOR	PMOS/SMOS	OFF	OFF	OFF	OFF	OFF	OFF
<u>RATING</u>	<u>PP/SERIES/GD</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>	<u>CIV</u>

ACDU
FTS
SELRES
AD

AR
SMCR
Civilian
Total:

INSTRUCTIONS:

- (1) List the training activity, location, and UIC.
- (2) List instructor and support billets separately by ACDU, FTS, and SELRES for Navy; AD, AR, and SMCR for USMC; and civilian. Identify officer rank and designator, enlisted rank or rating and NEC or MOS, and civil service PP, occupational series code, and GD as follows:
 - (a) Under PFYs, list the cumulative billets required in all previous FYs.
 - (b) Under CFY, list the billets required in the current FY.
 - (c) Under the remaining columns, list the billets required in each of the next 8 FYs.
- (3) Total billets by training activity, location, and UIC.

Element II.A.4. Chargeable Student Billet Requirements

		PFYs	CFY____	FY____	FY____	FY____	FY____
		ENL/ OFF CIV	ENL/ OFF CIV	ENL/ OFF CIV	ENL/ OFF CIV	ENL/ OFF CIV	ENL/ OFF CIV
ACTIVITY, LOCATION, UIC	NAVY USMC						
SUMMARY TOTALS:							
	NAVY						
	USMC						

GRAND TOTAL:

INSTRUCTIONS:

- (1) Calculate the incremental increase and decrease in chargeable student billets for each applicable training course listed in elements III.A.1 and III.A.2. List the aggregate incremental increase or decrease in Navy and USMC chargeable billets separately for each quota control activity.

(2) Under summary totals, provide total incremental increase or decrease of officer and enlisted chargeable student billets.

NOTE: Chargeable student billets (individual's account) include ACDU and FTS for Navy and AD and AR for USMC. SELRES and SMCR are not to be included. ACDU or FTS officer and enlisted chargeable students are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Chargeable student billets are the budget responsibility of the MPN or the Military Personnel, Marine Corps (MPMC) appropriation, as appropriate.

Element II.A.5. Temporary Duty Under Instruction Per Diem Costs

ACTIVITY, LOCATION, UIC	NAVY USMC	PFYs \$(K)	CFY____ \$(K)	FY____ \$(K)	FY____ \$(K)	FY____ \$(K)	FY____ \$(K)
SUMMARY TOTALS:							
	NAVY						
	USMC						

GRAND TOTAL:

INSTRUCTIONS:

(1) Calculate the incremental increase and decrease in temporary duty under instruction O&MN and Operation and Maintenance, Marine Corps (O&MMC) student per diem costs (dollars in thousands) for each applicable training course listed in elements III.A.1 and III.A.2. List the aggregate incremental increase or decrease in Navy and USMC temporary duty under instruction O&MN and O&MMC student per diem costs separately for each quota control activity.

(2) Under summary totals, provide total incremental increase or decrease in Navy and USMC temporary duty under instruction O&MN and O&MMC student per diem costs, respectively.

NOTE: Temporary duty under instruction incident to PCS movement. When members perform temporary duty under instruction en route between permanent duty stations, the travel costs connected therewith are the budget responsibility of the MPN or the MPMC appropriation, as

appropriate, except for the per diem costs which are payable to a member while at a school for instruction of less than 20-weeks duration. Such per diem costs will be budgeted in the O&MN or the O&MMC appropriation, as appropriate.

Element II.A.6. Annual Incremental and Cumulative Billets

a. OFFICER - NAVY

		CFY____	FY____	FY____	FY____	FY____
		+/-	+/-	+/-	+/-	+/-
	BILLET	CUMU-	CUMU-	CUMU-	CUMU-	CUMU-
DESIGNATOR	BASE	LATIVE	LATIVE	LATIVE	LATIVE	LATIVE

Operational billets ACDU and FTS
Fleet support billets ACDU and FTS
Instructor and support (staff) billets ACDU and FTS
Chargeable student billets ACDU and FTS

TOTAL NAVY OFFICER BILLETS:

Operational
Fleet Support
Staff
Student
SELRES

b. ENLISTED AND CIVILIAN - NAVY

			CFY____	FY____	FY____	FY____
			+/-	+/-	+/-	+/-
	PNEC/SNEC	BILLET	CUMU-	CUMU-	CUMU-	CUMU-
RTNG	PP/SERIES/GD	BASE	LATIVE	LATIVE	LATIVE	LATIVE

Operational billets ACDU and FTS
Fleet support billets ACDU and FTS
Instructor and support (staff) billets ACDU and FTS
Chargeable student billets ACDU and FTS

TOTAL NAVY ENLISTED AND CIVILIAN BILLETS:

Operational
Fleet Support
Staff

Student
SELRES

c. OFFICER - USMC

		CFY____ +/-	FY____ +/-	FY____ +/-	FY____ +/-	FY____ +/-
PMOS/SMOS	BILLET BASE	CUMU- LATIVE	CUMU- LATIVE	CUMU- LATIVE	CUMU- LATIVE	CUMU- LATIVE

Operational billets AD and AR
Fleet support billets AD and AR
Instructor and support (staff) billets AD and AR chargeable
student billets AD and AR

TOTAL USMC OFFICER BILLETS:

Operational
Fleet support
Staff
Student
SMCR

d. ENLISTED AND CIVILIAN - USMC

		CFY____ +/-	FY____ +/-	FY____ +/-	FY____ +/-
PMOS/SMOS PP/SERIES/GD	BILLET BASE	CUMU- LATIVE	CUMU- LATIVE	CUMU- LATIVE	CUMU- LATIVE

Operational billets AD and AR
Fleet support billets AD and AR
Instructor and support (staff) billets AD and AR
Student billets AD and AR

TOTAL USMC ENLISTED AND CIVILIAN BILLETS:

Operational
Fleet support
Staff
Student
SMCR

INSTRUCTIONS:

List the annual incremental and cumulative billets for Navy and USMC separately.

OFFICER INSTRUCTIONS:

(1) For officers, list the billet increases and decreases (by designator for Navy and PMOS and SMOS for USMC) for: operational, fleet support, and instructor and support staff by ACDU and FTS for Navy and AD and AR for USMC.

(2) Under billet base identify the billets previously programmed, funded, and allocated to the old and new development or reserve program. The following FY data reflects the changes to the billet base identified in this NTSP.

(3) Under CFY, indicate the net annual incremental and cumulative billet increases and decreases for the current FY.

(4) Under the remaining columns, indicate the net annual incremental and cumulative billet increases and decreases identified for each of the next 8 FYs.

(5) For officer chargeable student billets, list the total from element II.A.4. Chargeable student billets are not to be displayed by designator. Only provide the chargeable student summary totals from element II.A.4.

(6) Provide total Navy or USMC officer billets by operational, fleet support, instructor and support (staff), student, and SELRES or SMCR categories.

ENLISTED AND CIVILIAN INSTRUCTIONS:

(1) List the billet increases and decreases for enlisted Navy by rate or rating and PNEC or SNEC; for USMC by rank and PMOS or SMOS; and for civilians by PP, occupational series code, and GD; for operational, fleet support, and instructor and support (staff) by ACDU and FTS for Navy; AD and AR for USMC; and civilian.

(2) Under billet base identify the billets previously programmed, funded, and allocated to the old and new development or reserve program. The following FY data reflects the changes to the billet base identified in this NTSP.

(3) Under CFY, indicate the net annual incremental and cumulative billet increases and decreases in the current FY.

(4) Under the remaining columns, indicate the net annual incremental and cumulative billet increases and decreases for each of the next 8 FYs.

(5) For enlisted chargeable student billets, list the total from element II.A.4. Chargeable student billets are not to be displayed by rating and NEC; or PMOS and SMOS. Only provide the chargeable student summary totals from element II.A.4.

(6) Provide total Navy or USMC enlisted and civilian billets by operational, fleet support, instructor and support (staff), student, and SELRES or SMCR categories.

Section II.B. PERSONNEL REQUIREMENTS

Element II.B.1. Annual Training Input Requirements (ATIR)

CIN, COURSE TITLE:

COURSE LENGTH:

ATTRITION FACTOR:

SEA TOUR LENGTH:

BACKOUT FACTOR:

		ACDU- FTS	CFY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL
TRAINING							
ACVIVITY	SOURCE	SELRES					

TOTALS:

CIN, COURSE TITLE:

COURSE LENGTH:

ATTRITION FACTOR:

SEA TOUR LENGTH:

BACKOUT FACTOR:

		ACDU- FTS	CFY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL	FY____ OFF ENL
TRAINING							
ACVIVITY	SOURCE	SELRES					

TOTALS:

ACTIVITY TOTALS:

INSTRUCTIONS:

NOTE: The procedures for calculating ATIR for personnel attending existing, planned, and unique training courses are contained in paragraph 6 of this enclosure.

(1) List the ATIRs for each CIN and course title, to include all element III.A.2 types (existing, planned, unique, and existing training phased out).

(2) For each CIN, list the course length, sea tour length, attrition factor, and backout factor. Attrition factor does not apply to USMC students; it pertains to Navy students only.

(3) For each training activity, list the source (Navy, USMC, other Services, foreign, non-military, and Reserve), ACDU-FTS and SELRES for Navy and AD-AR and SMCR for USMC, and the total officer and enlisted personnel requiring training. Determine data from elements II.A.1.c. (for fleet and fleet support billets) and II.A.3. (for instructor and support staff billet requirements), and by computing the adjusted ATIR.

(4) Under CFY, indicate the number of personnel requiring training in the current FY.

(5) Under the remaining columns, indicate the number for personnel requiring training for the next 8 FYs.

(6) The backout factor is equal to two-hundredths the course length in weeks and is expressed as a percentage (20-week course $\times .02 = .4$ backout factor).

PART III - TRAINING REQUIREMENTS

Section III.A. TRAINING COURSE REQUIREMENTS

Element III.A.1. Initial Training Requirements

COURSE TITLE:

COURSE DEVELOPER:

INSTRUCTOR:

COURSE LENGTH:

<u>LOCATION, UIC</u>	<u>DATE BEGIN</u>	<u>STUDENTS OFF ENL CIV</u>	<u>ACTIVITY DESTINATION</u>
----------------------	-----------------------	---------------------------------	---------------------------------

Input
Chargeable

INSTRUCTIONS:

- (1) List the course title, course developer, instructor, and course length.
- (2) For each course, list by location and UIC the begin date, students, and ultimate activity destination (such as DT or OT) for training required prior to the establishment of follow-on training capability for officer, operations, maintenance, team, and civilian personnel for which the training support agency is responsible. List ACDU and FTS separately. The UIC listed is the activity having the administrative responsibility for the students.
- (3) Use the data from sections I.E. and I.H., and the BTP for inputs, as appropriate. The output for initial training will be assumed to be the same as the input.
- (4) Determine chargeable student billets. Navy or FTS officer and enlisted students requiring chargeable billets are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Officers and enlisted personnel on temporary additional duty (TAD) orders and civilians do not require chargeable student billets. Not applicable to SELRES.
- (5) State directly on this chart if some or all initial training has been completed and remove the historical data.
- (6) Course length for courses of 5 working days or less equals the number of days. Courses in excess of 5 working days include all weekends between the start of the day and last working day.

Element III.A.2. Follow-on Training

Element III.A.2.a. Existing Courses

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:

SOURCE: STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

CIN, COURSE TITLE:

SOURCE STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

INSTRUCTIONS:

Existing Courses: Formal Navy and other service courses, including modularized courses, listed in the Catalog of Naval Training Courses (CANTRAC), wherein training input requirements are included in the OPNAV annual class "C" school plans or fleet school plans. Training input requirements for NEC awarding class "C" school plans are submitted by the resource sponsor to the DCNO (N1) for the purpose of updating class "C" school plans. Non-NEC awarding class "C" school, and fleet school requirement data are used by NETC and the fleet to update appropriate plans. Additional resources required are identified and requested by the applicable TA through the normal programming process. The PM coordinates the training input requirements developed for existing courses with the applicable TA(s) sufficiently in advance to ensure that any additional training resources required, including MILCON, can be programmed by the last available POM year to meet required RFT dates.

(1) Identify as total input, the aggregate Navy or Marine Corps ATIR.

(2) List the activity, location and UIC (student), CIN, course title, source (Navy, USMC, other Service, etc.) requirement, and student category (ACDU-FTS and SELRES for Navy and AD-AR, and SMCR for USMC).

(3) Compute output by applying the school attrition factors to the ATIR figures.

(4) Compute average on board (AOB) to the nearest tenth by using the following formula:

$$\frac{\text{ATIR} + \text{Output}}{2} \times \frac{\text{Length (days)}}{365}$$

Course length for courses of 5 working days or less equals the number of days. Course lengths in excess of 5 working days include all weekends between the first and last class day.

(5) Determine chargeable student billets from AOB. The Navy or FTS officer and enlisted students requiring chargeable billets are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Officer, enlisted, and civilian personnel on TAD orders do not require chargeable student billets. Round off chargeable student billets to the nearest whole number for each UIC (student) when transposing this data to element II.A.4. List ACDU and FTS chargeable billets separately, not applicable to SELRES. The requirements identified here are related to this program only. If the requirements for this new program have been identified in another NTP, then so state.

Element III.A.2.b. Planned Courses

TRAINING ACTIVITY:

LOCATION, UIC:

CIN, COURSE TITLE:

SOURCE: STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

CIN, COURSE TITLE:

SOURCE STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

INSTRUCTIONS:

Planned Courses: Formal new courses provided for in related NTSPs. Training input requirements identified in the total ship and reserve program NTSP are coordinated with the appropriate aviation, equipment, system, or subsystem, or total ship NTSP. Accountability for planned courses is within the related NTSP.

(1) List the activity, location and UIC (student), CIN, course title, source (Navy, USMC, other Service, etc.) requirement, and student category (ACDU-FTS and SELRES for Navy and AD-AR, and SMCR for USMC).

(2) Identify as total input, the aggregate Navy or Marine Corps ATIR.

(3) Compute Output by applying the school attrition factors to the ATIR figures.

(4) Compute AOB to the nearest tenth by using the following formula:

$$\frac{\text{ATIR} + \text{Output}}{2} \times \frac{\text{Length (days)}}{365}$$

Course length for courses of five working days or less equals the number of days. Courses lengths in excess of 5 working days include all weekends between the first and last class day.

(5) Determine chargeable student billets from AOB. The Navy or FTS officer, and enlisted students requiring chargeable billets are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Officer, enlisted, and civilian personnel on TAD orders do not require

chargeable student billets. Round off chargeable student billets to the nearest whole number for each UIC (student) when transposing this data to element II.A.4. List ACDU and FTS chargeable billets separately, not applicable to SELRES.

Element III.A.2.c. Unique Courses

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:
SOURCE: STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

CIN, COURSE TITLE:
SOURCE STUDENT CATEGORY:

CFY_____	FY_____	FY_____	FY_____	FY_____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB
Chargeable

INSTRUCTIONS:

Unique Courses: Formal new courses to be conducted at a training activity to support this new development. Training input requirements and the associated resource requirements are identified within the NTSP with the exception of those unique equipment, systems, or subsystems supported by an individual NTSP. In the event training courses and or resources are required to support equipment, systems, or subsystems unique to the total ship or reserve program for which a separate NTSP is not expected to be developed, training input requirements are developed, and training resource requirements will be listed in part IV.

(1) List the activity, location and UIC (student), CIN, course title, source (Navy, USMC, other Service, etc.) requirement, and student category (ACDU-FTS and SELRES for Navy and AD-AR, and SMCR for USMC).

(2) Identify as total input, the aggregate Navy or Marine Corps ATIR.

(3) Compute output by applying the school attrition factors used to the ATIR figures.

(4) Compute AOB to the nearest tenth by using the following formula:

$$\frac{\text{ATIR} + \text{Output}}{2} \times \frac{\text{Length (days)}}{365}$$

Course length for courses of 5 working days or less equals the number of days. Courses in excess of 5 working days include all weekends between the first and last class day.

(5) Determine chargeable student billets from AOB. The Navy or FTS officer, and enlisted students requiring chargeable billets are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Officer, enlisted, and civilian personnel on TAD orders do not require chargeable student billets. Round off chargeable student billets to the nearest whole number for each UIC (student) when transposing this data to element II.A.4. List ACDU and FTS chargeable billets separately, not applicable to SELRES.

Element III.A.3. Existing Training Phased Out

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:
SOURCE: STUDENT CATEGORY:

CFY _____	FY _____	FY _____	FY _____	FY _____
<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>	<u>OFF</u> <u>ENL</u>

ATIR
Output
AOB

Chargeable

		<u>CIN, COURSE TITLE:</u>								
		<u>SOURCE</u>		<u>STUDENT CATEGORY:</u>						
CFY		FY		FY		FY		FY		
<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	
										ATIR
										Output
										AOB
										Chargeable

INSTRUCTIONS:

(1) List the activity, location and UIC (student), CIN, course title, source (Navy, USMC, other Service, etc.) requirement, and student category (ACDU-FTS and SELRES for Navy and AD-AR, and SMCR for USMC).

(2) Identify as total input, the aggregate Navy or USMC ATIR.

(3) Compute output by applying the school attrition factors to the ATIR figures.

(4) Compute AOB to the nearest tenth by using the following formula:

$$\frac{\text{ATIR} + \text{Output}}{2} \times \frac{\text{Length (days)}}{365}$$

Course length for courses of 5 working days or less equals the number of days. Courses in excess of 5 working days include all weekends between the start of the day and last working day.

(5) Determine chargeable student billets from AOB. The Navy or FTS officer, and enlisted students requiring chargeable billets are defined as those on PCS orders regardless of the length of the training course to which they have been ordered. Officers, enlisted, and civilian personnel on TAD orders do not require chargeable student billets. Round off chargeable student billets to the nearest whole number for each UIC (student) when transposing this data to element II.A.4. List ACDU and FTS chargeable billets separately, not applicable to SELRES.

Section III.B. Total Ship Training Course Summary

NOTE: Element III.B. Only applies to total ship NTSPs.
This element can be replaced by a BTP appendix.

Element III.B.1. OFFICER

<u>BILLET SEQUENCE CODE</u>	<u>RANK</u>	<u>DESIGNATOR</u>	<u>NOBC</u>	<u>BILLET TITLE</u>
<u>CODE</u>	<u>CIN</u>	<u>COURSE TITLE</u>		<u>LOCATION/UIC</u>

INSTRUCTIONS:

(1) Identify the course title, course or NTSP number, location and appropriate command UIC. List the officer training courses required by billet title. Assign a lower case alphabetical code to each course starting with "a". The lower case alphabetical code for pre-commissioning courses should be underscored "a". Identify the rank, designator, NOBC, and length of training.

(2) This summary is required to provide a planning basis for determining training resource requirements, and PCS funding requirements.

Element III.B.2. ENLISTED

<u>BILLET SEQUENCE CODE</u>	<u>RATE</u>	<u>PNEC/MOS</u>	<u>SNEC/MOS</u>	<u>BILLET TITLE</u>
<u>CODE</u>	<u>CIN</u>	<u>COURSE TITLE</u>		<u>LOCATION/UIC</u>

INSTRUCTIONS:

(1) Identify the course title, course or NTSP number, location, and appropriate command UIC. List the enlisted training courses required by rating and MOS in alphabetical order. Assign an upper case alphabetical code to each course starting with "A". The upper case alphabetical code for pre-commissioning courses should be underscored "A". Identify rating, NEC, and length of training.

(2) This summary is required to provide a planning basis for determining training resource requirements, and PCS funding requirements.

Element III.C. IDTT and Annual Training (AT) Summary

NOTE: Element III.C only applies to Reserve Component Program NTSPs.

IDTT*

FY		FY		FY		FY		FY		FY	
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

List for each FY the number of annual officer and enlisted total requirements for IDTT to satisfy the training in part III.

* The above IDTT totals indicate the number of SELRES IDTT trips required by this NTSP per FY. Each IDTT consists of 2 days (four drill periods).

AT**

FY		FY		FY		FY		FY		FY	
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

List for each FY the number of annual officer and enlisted total requirements for AT to satisfy the training in part III.

** The AT figures represent one AT per FY for each manpower requirement. ATs in this program average 14 days.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

Section IV.A. TRAINING HARDWARE

Element IV.A.1. TTE, General Purpose Test Equipment (GPTE), Special Purpose Test Equipment (SPTE), Special Tools (ST), General Purpose Electronic Test Equipment (GPETE), and Special Purpose Electronic Test Equipment (SPETE)

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:

<u>ITEM NUMBER</u>	<u>EQUIPMENT</u>	<u>TYPE OR RANGE OF REPAIR PARTS</u>	<u>QTY RQRD</u>	<u>DATE RQRD</u>	<u>GFE CFE</u>	<u>STATUS</u>
TTE						
SPETE						
GPTE						
SPTE						
ST						
GPETE						

INSTRUCTIONS:

(1) List the training activity, location, UIC, CIN, and course title.

(2) For each piece of training hardware, assign an item number consecutively starting with 001 within each category (TTE, GPTE, SPTE, ST, GPETE, or SPETE) (e.g., TTE 001, GPTE 001, etc.). When identifying specific hardware in other acquisition documents, the NTSP number followed by the item number should be provided such as N98-NTSP-A-50-1201A-TTE-001.

(3) List the item number and equipment designation for TTE. List the type and range of repair parts required; the quantity required (abbreviated as QTY REQD); date required for initial acquisition, replacement, modernization or overhaul of the hardware; and the status for each piece, such as on board.

(4) Identify equipment required as GFE or CFE in support of each training device listed in element IV.A.2.

(5) When initial production equipment is not provided to the training command, annotate the item and state the rationale for

non-compliance, status of request for deviation, and action being taken to develop alternative training if deviation is authorized.

(6) Reference can be made to an official document providing it specifies all the hardware or repair parts to be delivered are available to the training activity. If a list or reference document is not prepared, indicate the status of development and the planned completion date.

Element IV.A.2. Training Devices

DEVICE:
DESCRIPTION OF DEVICE:
MANUFACTURER:
CONTRACT NUMBER:
TEE STATUS:

<u>TRAINING ACTIVITY</u> <u>LOCATION, UIC</u>	<u>QTY</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>	<u>RFT</u> <u>DATE</u>	<u>STATUS</u>	<u>COURSES</u> <u>SUPPORTED</u>
--	---------------------------	----------------------------	---------------------------	---------------	------------------------------------

INSTRUCTIONS:

- (1) For each training device, provide a brief description, manufacturer, and contract number.
- (2) List the training activity; location; UIC; quantity required; date required; RFT date; status of training device delivery such as on board, delayed, etc.; and training courses supported.
- (3) By footnote, reference the appropriate document(s), that provides the type and range of repair parts required to support the training device.
- (4) TTE required for training devices as GFE and or government-furnished materials are listed in element IV.A.1.
- (5) By footnote, address requirements for CMS. If CMS is not to be used, so state.

(6) If a training device supports multiple courses (not just those unique to the new development) and if these courses are documented in other NTSPs, cross-reference the related NTSPs through annotation and identify quantities.

Section IV.B. COURSEWARE REQUIREMENTS

Element IV.B.1. Training Services

<u>COURSE/TYPE OF TRAINING</u>	<u>SCHOOL/ LOCATION/UIC</u>	<u>NUMBER OF PERSONNEL</u>	<u>MAN WEEKS REQUIRED</u>	<u>BEGIN DATE</u>
------------------------------------	---------------------------------	--------------------------------	-------------------------------	-----------------------

INSTRUCTIONS:

(1) List for each course and type of training; the school location and UIC; training services required in number of personnel and man weeks; and begin date to meet the RFT date.

(2) When two or more sites are utilized for training, training advisory services are required at each site.

Element IV.B.2. Curricula Materials and Training Aids

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:

<u>TYPES OF MATERIAL OR AID</u>	<u>QTY REQD</u>	<u>DATE REQD</u>	<u>STATUS</u>
---------------------------------	---------------------	----------------------	---------------

INSTRUCTIONS:

(1) List the training activity, location, UIC, CIN, and course title.

(2) List the type of curriculum materials. List the quantity required and the date required to meet RFT date. Indicate status of material delivery such as on board, delayed, etc.

Element IV.B.3. Technical Manuals

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:

<u>TECHNICAL MANUAL TITLE, NUMBER</u>	<u>MEDIUM</u>	<u>QTY REQD</u>	<u>DATE REQD</u>	<u>STATUS</u>
---------------------------------------	---------------	-----------------	------------------	---------------

INSTRUCTIONS:

(1) List the training activity, location, UIC, CIN, and course title.

(2) List the title and publication number of technical manuals or IETMs necessary for training on the operation and maintenance of the development, medium (hardcopy, microfiche, IETM disk, or compact disc, etc.), quantity required, date required to meet RFT date, and delivery status of items such as on board, delayed, etc.

(3) When initial production technical manuals are not provided to the training command, annotate the item and state the rational for non-compliance, status of request for deviation, and action being taken to develop alternative training if deviation is authorized.

NOTE: When the list of required technical manuals is lengthy and available in another list, make reference to that list.

Section IV.C. FACILITY REQUIREMENTS

Element IV.C.1. Facility Requirements Summary (Space and Support) by Activity

TRAINING ACTIVITY:

LOCATION, UIC:

CIN, COURSE TITLE:

REQUIRED RFT DATE:

SQUARE FEET SPACE REQUIREMENTS			MAJOR FACILITY REQUIREMENTS			SPACE AVAILABLE			FACILITIES SUPPORT AVAILABILITY		
ACADEMIC CLASS	LAB	APPLIED CLASS/LAB	(KW) POWER	AIR COND- ITIONING (A/C) (TONS)	OTHER CRIT- ICAL	F	P	N	(KW) POWER	A/C TONS	OTHER CRITICA L

CIN, COURSE TITLE:
REQUIRED RFT DATE:

SQUARE FEET SPACE REQUIREMENTS			MAJOR FACILITY REQUIREMENTS			SPACE AVAILABLE			FACILITIES SUPPORT AVAILABILITY		
ACADEMIC CLASS	LAB	APPLIED CLASS/LAB	(KW) POWER	A/C TONS	OTHER CRIT- ICAL	F	P	N	(KW) POWER	A/C TONS	OTHER CRITICAL

INSTRUCTIONS:

- (1) List the training activity, location, UIC, CIN, course title, and the required RFT date (insert "D" if in support of a training device and add a footnote identifying the training device).
- (2) List space requirements in square feet for the academic classroom, laboratory, and or applied classroom or laboratory.
- (3) List major facility requirements such as electrical power in kilowatts (KW), air conditioning in tons, and other critical requirements such as chilled water, special electrical grounding, or radio frequency interference shielding.
- (4) Identify existing space availability in a full (F), partially (P), or not available (N) category.
- (5) Identify facility support availability in terms of electrical power in kilowatts, air conditioning in tons, or other critical needs such as chilled water, special electrical grounding, or radio frequency interference shielding.
- (6) Reference applicable training system installation plans.

NOTE: Reference can be made to an official document providing it specifies all the facility information. If a reference document is not prepared, indicate the status of development and the planned completion date.

Element IV.C.2. Facility Requirements Detailed by Activity and Course

TRAINING ACTIVITY:
LOCATION, UIC:

CIN, COURSE TITLE:
BUILDING AND ROOM NUMBER:
TYPE OF FACILITY PROJECT:
FACILITY PROJECT NUMBER
REQUIRED PROJECT AWARD DATE:
REQUIRED RFU DATE:

INSTRUCTIONS:

- (1) List the activity, location, UIC, CIN, course title, building and room number, annotate "NA" if none.
- (2) List type of facility project such as MILCON, site preparation, alteration, or conversion.
- (3) List the facility project number, required project award date, RFU date, and the required RFT date (insert "D" if in support of a training device and add a footnote identifying the training device).
- (4) Reference applicable training system installation plans.

NOTE: Reference can be made to an official document providing it specifies all the facility information. If a reference document is not prepared, indicate the status of development and the planned completion date.

Element IV.C.3. Facility Project Summary by Program

TRAINING ACTIVITY:
LOCATION, UIC:

<u>PROJECT</u> <u>NUMBER</u>	<u>TOTAL SCOPE</u>	<u>PROJECTED</u> <u>AWARD DATE</u>	<u>PROJECTED</u> <u>RFU DATE</u>	<u>STATUS</u>
---------------------------------	--------------------	---------------------------------------	-------------------------------------	---------------

INSTRUCTIONS:

- (1) List the training activity, location, and UIC.
- (2) List project number, total scope of project in square feet (insert "D" if in support of a training device and add a footnote identifying the training device), the projected award

date, projected RFU date, and status such as project development, construction start and completion dates, and delays.

(3) List other non-training facility projects resulting from this program such as bachelor officer quarters, dining facility expansions or constructions, etc. Indicate whether these related facility projects are fully dedicated to this program.

(4) Reference applicable training system installation plans.

PART V - MPT POA&M

ACTIVITY	ACTION AND MILESTONES	DATE
PM	Job task analysis	
Resource Sponsor	Identify and fund manpower and training resource requirements prior to RFT	
PM	Manpower analysis	
PM	FEA	
PM	Training requirements planning	
PM	Preliminary, final NTSP	
PM	Training transfer agreement	
PM	RFT	

INSTRUCTIONS:

List major MPT milestones and the key controlling events pertaining to the introduction of the new development. List the activity that has cognizance over the milestone, date of the action, and provide a status of the event. Key events are those which are included in the planning, identification, acquisition, detailing, and sequence for manning and training personnel. The listings above are samples of controlling events that generally govern the progress of MPT planning requirements. This list is not all-inclusive and must be modified, as necessary, to reflect the peculiar requirements of individual developments.

PART VI - DECISION ITEMS AND ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS

INSTRUCTIONS:

(1) List NTSPC decisions and CNO-directed actions to be taken by the principals, cognizant offices, and commands which must be resolved to implement this NTSP. The resource sponsor issues action items and ensures they are incorporated into subsequent NTSP updates. List the command responsible for the action items; provide the due date, and the status of action items.

(2) Completed action items listed in part V can be deleted on the next NTSP update when no longer applicable.

NOTE: Only include those decisions and actions that have a significant MPT impact.

PART VII - POINTS OF CONTACT

NAME, ACTIVITY, CODE	FUNCTION	EMAIL, PHONE NUMBER: COMMERCIAL DSN

INSTRUCTIONS:

(1) List locations, names, and codes of NTSP principals and other contacts. Under function, include a description of responsibility or title. Provide appropriate commercial and DSN telephone number for each contact.

(2) List in order: the resource sponsor(s), PM, training system program office, then all other principals in hierarchical order.

(3) Include all personnel having a direct impact on MPT, or as directed by the resource sponsor, PM, or training system program office.

6. Instructions for Calculating ATIR. The procedures for calculating ATIR for personnel attending existing, planned, and unique training courses are as follows:

a. Two different computational methodologies, dependent upon the number of courses in a training pipeline, will be used to develop adjusted ATIR. Method "A" is used for computation for a single course of instruction. Method "B" is for a training pipeline comprised of two or more individual courses in a specific sequence leading to a new NEC or MOS, in which the output of one course is the input to the following course.

b. Either methodology involves the adjustment of the number of required trained personnel to compensate for school attrition and to account for a backout factor. A backout factor is applied to shift a percentage of input from 1 year back to the previous year to ensure the required output is available in the original year. It is applied only to courses in excess of 2 weeks in length and convened on a continuous basis (back to back). The backout factor is equal to two-hundredths the course length in weeks and is expressed as a percentage (20-week course $\times .02 = .4$ backout factor).

c. See element A.4 for phased out course ATIR methodology.

A.1 Assumptions. The methodology is based on the following assumptions:

a. For the purpose of this methodology, personnel will normally be reassigned to the same NEC coded billet for an entire career. This assumption is consistent with current career planning guidelines wherein "A" and "C" schools are going to closed-loop detailing philosophies. Personnel will know when they enter the Navy that they will work on, for example, the F/A-18 for their entire career.

b. Transient, patient, separations, and disciplinary accountability is achieved through the cumulative number of personnel transferred from duty. This is accounted for by the attrition factor.

c. Sea-to-shore rotation goals are also achieved through the cumulative number of personnel transferred from duty. These methodologies provide the minimum procedures necessary to determine adjusted ATIR. Additional procedures or algorithms may be applied if they provide for more accurate determination of adjusted ATIR and if agreed to by the applicable resource sponsor and DCNO (N1). The PM calculates adjusted ATIR for each

course in the NTSP and upon the occasion of each NTSP being updated using the appropriate worksheet. Tour length factor is obtained from the enlisted transfer manual and shall be averaged to the whole number for all GDs within the rating. Course attrition factor (CAF) data is obtained through coordination with the applicable TA or, for new courses, estimated based on similar existing courses.

A.2 Method "A" ATIR Instructions and Calculation Worksheet

NOTE: The examples in the following steps are based on an enlisted 3-year sea tour, 10 percent course attrition, and a 25-week course. A worksheet is provided to facilitate computations.

a. Step 1 - PLANNING FACTORS. Enter the specific factors for calculations. Course length is extracted from element II.B.1 of the NTSP. The course length from element II.B.1 must be converted from days to weeks for ATIR calculations. CAF is obtained from Navy Integrated Training Resources and Administration System (NITRAS), or estimated, based on a similar existing course. Sea tour length is obtained from Chief of Naval Personnel Enlisted Distribution Division (PERS-40). When calculating backout factor, use the following formula (course length in weeks x 0.02).

Planning Factors:

Course Length: 25 weeks
CAF: 10 percent (Navy enlisted)
Sea Tour Length: 3 years
Backout Factor: .5

b. Step 2 - PLANNING YEARS. Enter the 8-year planning period listed in element II.A.1.c. Record a FY prior to and after the 8-year planning period.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
	-----Eight-Year Planning Period						

c. Step 3 - INTRODUCTION OF BILLETS. For the course selected, take the total requirements for each planning period

FY for each designator, NEC, or MOS and rate as applicable from element II.A.1.c and assign them by year on the Introduction line of the ATIR Calculation Worksheet.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	

NOTE: In FY12, 61 billets will be introduced; In FY13, 42 billets will be introduced; etc.

d. Step 4 - REPLACEMENT. In this example, personnel trained in FY11, e.g., FY11 to FY17 unadjusted ATIR, will be replaced in FY14 (FY11 plus 3 years' sea tour length = FY14); FY12 will be replaced in FY15 (FY12 plus 3 years' sea tour length = FY15); etc.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42				
Attrition		6	4				
Course Input		67	46				

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Backout	34	23					
Course ATIR		33	23				
Adjusted ATIR	34	56					

NOTE: Replacement for the first 2 planning years (FY12 and FY13) is zero since the sea tour length is 3 years and no one was replaced in those years. Replacement in FY14 is 31. This is the product of FY11 adjusted ATIR (34) multiplied by (1 - attrition factor; $1 - 0.1 = 0.9$). FY11 adjusted ATIR (34) is based on the FY11 backout resulting from the FY12 course input of 67, which is covered in element h, step 8, backout. Therefore, replacement is $34 \times 0.9 = 31$ for FY14. Replacement for FY15 is the product of FY12 adjusted ATIR (56) $\times 0.9 = 50.4$ rounded to 50; etc.

e. Step 5 - UNADJUSTED ATIR. Enter the sum of the introduction and replacement lines on the unadjusted ATIR line.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80

NOTE: "Introduction" plus "Replacement" equals "Unadjusted ATIR."

f. Step 6 - ATTRITION. Enter the product of unadjusted ATIR and attrition factor on the attrition line. NOTE: attrition in this example is 10 percent of unadjusted ATIR. (In FY12, unadjusted ATIR is 61. 10 percent of 61 is 6. Therefore, attrition for FY12 is 6).

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80
Attrition		6	4	8	9	7	8

g. Step 7 - COURSE INPUT. Enter the sum of unadjusted ATIR and attrition on the course input line.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80
Attrition		6	4	8	9	7	8
Course Input		67	46	84	94	74	88

h. Step 8 - BACKOUT. Enter product of course input for the planning year and backout factor on the backout line for the previous year.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80
Attrition		6	4	8	9	7	8
Course Input		67	46	84	94	74	88
Backout		34	23	42	47	37	44

NOTE 1: Course input for FY12 is 67. Backout factor is 0.5. $67 \times 0.5 = 33.5$ or 34 billets in backout of FY11; course input for FY13 is 46. Backout factor is 0.5. $46 \times 0.5 = 23$ billets in backout of FY12; etc.

NOTE 2: The backout for FY11 above represents the initial training requirement for operational and fleet support billets.

i. Step 9 - CURRENT YEAR ATIR. Subtract backout computed in step 8 from original planning year course input used to determine backout for that original planning year. Enter the difference on the current ATIR line for original planning year. FY12 Course Input minus FY11 Backout = Current ATIR FY12.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80
Attrition		6	4	8	9	7	8
Course Input		67	46	84	94	74	88
Backout		34	23	42	47	37	44
Current ATIR		33	23	42	47	37	44

NOTE: FY12 Current ATIR = $67 - 34$ for FY12 (33); FY13 Current ATIR = $46 - 23$ for FY13 (23); FY14 Current ATIR = $84 - 42$ for FY14 (42); etc.

j. Step 10 - Adjusted ATIR. Enter the sum of backout and current year ATIR on the adjusted ATIR line for each year.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement		0	0	31	50	59	80
Unadjusted ATIR		61	42	76	85	67	80
Attrition		6	4	8	9	7	8
Course Input		67	46	84	94	74	88
Backout	34	23	42	47	37	44	
Current ATIR		33	23	42	47	37	44
Adjusted ATIR	34	56	65	89	84	81	44

NOTE 1: Adjusted ATIR for FY12 is 23 (Backout) plus 33 (Current ATIR) = 56; Adjusted ATIR for FY13 is 42 (Backout) plus 23 (Current ATIR) = 65; etc.

NOTE 2: Adjusted ATIR for current planning year cannot be determined until Backout for next planning year is completed.

k. Step 11 - SECOND PLANNING YEAR. Repeat steps 4 through 10 for the second planning year.

l. Step 12 - REMAINING PLANNING YEARS. Repeat steps 4 through 10 for remaining computation years.

m. Step 13 - EXTENDED PLANNING YEARS. Steps 4 through 10 may be repeated beyond the 8-year planning period to determine steady state ATIR.

Method "A" ATIR
CALCULATION WORKSHEET

1. PLANNING FACTORS

Course Length _____ weeks
Attrition Factor _____ percent
Tour Length _____ years
Backout Factor _____

2. PLANNING YEARS (FY)

3. INTRODUCTION (from element II.A.1.c)	_____	_____	_____	_____	_____	_____	_____
4. REPLACEMENT (Adjusted ATIR [From Planning Year - Tour Length]) x (1 - Attrition Factor)	_____	_____	_____	_____	_____	_____	_____
5. UNADJUSTED ATIR (Line 3 + Line 4)	_____	_____	_____	_____	_____	_____	_____
6. ATTRITION (Line 5 x Attrition Factor)	_____	_____	_____	_____	_____	_____	_____
7. COURSE INPUT (Line 5 + Line 6)	_____	_____	_____	_____	_____	_____	_____
8. BACKOUT (Backout Factor x Line 7)	_____	_____	_____	_____	_____	_____	_____
9. CURRENT ATIR (Line 7 - Line 8)	_____	_____	_____	_____	_____	_____	_____
10. ADJUSTED ATIR (Line 9 + Line 8)	_____	_____	_____	_____	_____	_____	_____

A.3 METHOD "B" ATIR Instructions and Calculation Worksheet

NOTE: The examples in the following steps are based on a 3-year sea tour; a three-course pipeline with attrition factors of 0.1, 0.15, and 0.20 with a total pipeline length of 40 weeks. A worksheet is provided to facilitate computations.

a. Step 1 - PLANNING FACTORS. Enter the specific factors to be used in the calculations. Pipeline length is determined from the training concept in part I of the NTSP. Sea tour length is obtained from the resource sponsor. Calculate backout factor from the formula (pipeline length in weeks x 0.02). CAFs are obtained from NITRAS or estimates based on similar existing courses. Calculate pipeline attrition factor (PAF) to three decimal places from the formula: $(1 - CAF1), (1 - CAF2), (1 - CAF3), (1 - CAFn)$.

Pipeline Length:	40 weeks
CAFs:	
CAF1	0.1 $(1 - 0.1 = 0.9)$
CAF2	0.15 $(1 - 0.15 = 0.85)$
CAF3	0.2 $(1 - 0.2 = 0.8)$
PAF:	0.612 $(0.9 \times 0.85 \times 0.8 = 0.612)$
Sea Tour Length:	3 years
Pipeline Backout Factor:	0.8 $(40 \text{ weeks} \times 0.02 = 0.8)$

b. Step 2 - PLANNING YEARS. Enter the 8-year planning period listed in element II.A.1.c. (aviation, equipment, system, or subsystem) and element III.B. (total ship, Reserve). Record the FY prior to and after the 8-year planning period.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
	--Eight-Year Planning						

Period---

c. Step 3 - INTRODUCTION. Enter the incremental operational and fleet support sea and shore billets from element II.A.1.c.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	

d. Step 4 - REPLACEMENT. Personnel in this program, in FY11, will be replaced in FY14 (FY11 plus 3 years sea tour

length = FY14); FY12 will be replaced in FY15 (FY12 plus 3 years' sea tour length = FY15); etc. On replacement line for the planning year, enter the product of adjusted ATIR from replacement year and (1 -PAF). (Adjusted ATIR in FY11 is 80; 1 - PAF is $1 - 0.612 = 0.388$; replacement for FY11 equals $80 \times 0.388 = 31.04$; therefore replacement for FY14 is 31.)

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement*	0	0	0	31			
Unadjusted ATIR		61	42	76			

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Pipeline Input		100	69				
Attrition		39	27				
Backout	80	55					
Current ATIR	0	20					
Adjusted ATIR	80	75					

* Replacement for first 2 planning years is zero since the tour length is 3 years and no replacement students will be trained in FY12 or FY13.

e. Step 5 - UNADJUSTED ATIR. Enter the sum of introduction and replacement requirements on the unadjusted ATIR line. (In FY12, Introduction is 61; Replacement is zero; $61 + 0 = 61$. In FY13, Introduction is 42; Replacement is 0; Unadjusted ATIR for FY13 is $42 + 0 = 42$.)

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				

f. Step 6 - PIPELINE INPUT. Divide unadjusted ATIR by PAF and enter quotient on pipeline input line. (FY12: Divide 61 by $0.612 = 99.67$ rounded to 100. FY13: Divide 42 by $0.612 = 68.63$ rounded to 69.)

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				
Pipeline Input		100	69				

g. Step 7 - ATTRITION. Enter the difference between pipeline input and unadjusted ATIR on attrition line. (FY12: $100 - 61 = 39$; FY13: $69 - 42 = 27$; etc.)

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42		(Step 5)		
Pipeline Input		100	69		(Step 6)		
Attrition		39	27		(Step 7)		

h. Step 8 - BACKOUT. Enter product of pipeline input for the planning year and backout factor on the backout line for the previous year. (Pipeline Input for FY12 is 100, Backout is 0.8; $100 \times 0.8 = 80$; therefore Backout for FY11 is 80.) Pipeline Input for FY13 is 69, Backout is 0.8; $69 \times 0.8 = 55$; therefore Backout for FY12 is 55.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				
Pipeline Input		100	69				
Attrition		39	27				
Backout	80	55					

i. Step 9 - CURRENT YEAR ATIR. Subtract backout in step 8 from pipeline input for planning year. Enter difference on current ATIR line for planning year. (Subtract Backout for FY11 (80) from Pipeline Input for FY12 (100); $100 - 80 = 20$. Therefore, 20 is the current ATIR for FY12.) Subtract Backout for FY12 (55) from Pipeline Input for FY13 (69); $69 - 55 = 14$; therefore 14 is the Current ATIR for FY13.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				
Pipeline Input		100	69				
Attrition		39	27				
Backout	80	55					
Current ATIR	0	20	14				

j. Step 10 - ADJUSTED ATIR. For the previous year, enter the sum of backout and current year ATIR on the adjusted ATIR line. (For FY11 add Backout (80) plus Current ATIR (0) = 80 for FY11 Adjusted ATIR.) (For FY12 add Backout (55) plus Current ATIR (20) = 75 for FY12 Adjusted ATIR.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				
Pipeline Input		100	69				
Attrition		39	27				
Backout	80	55			(Step 8)		
Current ATIR	0	20	14		(Step 9)		
Adjusted ATIR	80*	75			(Step 10)		

* The backout for the first planning year represents the initial training requirement for operational and fleet support billets.

NOTE: Adjusted ATIR for current planning year cannot be determined until backout for next planning year is computed.

k. Step 11 - 2ND PLANNING YEAR. Repeat steps 4 through 10 for the second planning year.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	
Replacement	0	0	0	31			
Unadjusted ATIR		61	42				
Pipeline Input		100	69				
Attrition		39	27				
Backout	80	55					
Current ATIR	0	20	14				
Adjusted ATIR	80	75	113				

FY12 Planning Year Backout (55) + Previous Current Year ATIR (20) = FY12 Adjusted ATIR (75).

l. Step 12 - REMAINING PLANNING YEARS. Repeat steps 4 through 10 for remaining computation years.

Planning Years (FY)	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
Introduction		61	42	45	35	8	0
Replacement		0	0	31	29	44	42
Unadjusted ATIR		61	42	76	64	52	42
Pipeline Input		100	69	124	105	85	69
Attrition		39	27	48	41	33	27
Backout	80	55	14	84	68	55	45
Current ATIR	0	20	14	25	21	17	14
Adjusted ATIR	80	75	113	109	89	72	59

m. Step 13 - EXTENDED PLANNING YEARS. Steps 4 through 10 may be repeated beyond the 8-year planning period to determine steady state ATIR.

Method "B" ATIR
CALCULATION WORKSHEET

1. PLANNING FACTORS

Pipeline Length: _____ weeks

CAF:

CAF1 _____%

CAF2 _____%

CAF3 _____%

Pipeline Attrition Factor (PAF): _____%

Sea Tour Length: _____ years

Pipeline Backout Factor: _____

- | | | | | | | |
|---------------------------|-------|-------|-------|-------|-------|-------|
| 2. PLANNING YEARS (FY) | _____ | _____ | _____ | _____ | _____ | _____ |
| 3. INTRODUCTION | _____ | _____ | _____ | _____ | _____ | _____ |
| (from element II.A.1.c) | | | | | | |
| 4. REPLACEMENT | _____ | _____ | _____ | _____ | _____ | _____ |
| (Adj. ATIR [From Planning | | | | | | |
| Year - Tour Length]) | | | | | | |
| x (1 - PAF) | | | | | | |
| 5. UNADJUSTED ATIR | _____ | _____ | _____ | _____ | _____ | _____ |
| (Line 3 + Line 4) | | | | | | |
| 6. ATTRITION | _____ | _____ | _____ | _____ | _____ | _____ |
| (Line 5) | | | | | | |
| (PAF) | | | | | | |
| 7. ATTRITION | _____ | _____ | _____ | _____ | _____ | _____ |
| (Line 6 - Line 5) | | | | | | |
| 8. BACKOUT | _____ | _____ | _____ | _____ | _____ | _____ |
| (Line 6 x Backout Factor) | | | | | | |
| 9. CURRENT ATIR | _____ | _____ | _____ | _____ | _____ | _____ |
| (Line 6 - Line 8) | | | | | | |

10. ADJUSTED ATIR _____
(Line 9 + Line 8)

A.4. ATIR for Phase-Out Courses (With AOB)
Course Title: Test Course X-XXX-XXXX

Planning Factors: Length: 12 Weeks Backout: 0.24
Attrition: 10 percent Begin FY: 11
Tour Length: 3 Years (36 Months)

Planning Years	11	12	13	14	15	16	17	18		
Fleet Requirements	108	108	108	108	81	68	40	24		
Replacement	36	36	36	36	27	23	13	8		
Attrition	4	4	4	4	3	2	1	1		
Input	40	40	40	40	30	25	14	9		
Backout	10	10	10	7	6	3	2	0		
Current ATIR	30	30	30	30	23	19	11	7		
Adjusted ATIR	40	40	40	37	29	22	13	7		
Output	36	36	36	33	26	20	12	6		
AOB/Chargeable	8.5	8.5	8.5	7.9	6.2	4.7	2.8	1.5		

NOTE: This methodology uses the same rationale as the ATIR methodology. In this methodology, we only train the replacements. In this example, the replacement for FY11 through 18 is computed by dividing the fleet requirement by the tour length in years.

a. Fleet training requirements are determined by taking total authorized (funded) billets for a particular NEC, MOS, or designator.

b. Replacement personnel are determined by dividing fleet requirements by tour length in years. (FY11: Replacement is 108 divided by 3 = 36; FY15: Replacement is 81 divided by 3 = 27.)

c. Attrition is 10 percent of replacement for enlisted Navy, enlisted FTS, and enlisted SELRES. Attrition is 0 percent for Navy officers and all USMC.

d. Input is replacement plus attrition for that year. (FY11 is 36 + 4 = 40; FY15 is 27 + 3 = 30.)

e. Backout factor is .02 times the number of weeks in the course. The backout factor requirement is the backout from previous year. In this example, the backout factor is $0.02 \times 12 = 0.24$. (Backout for FY12 is (FY13 Input $\times 0.24$; $40 \times 0.24 = 9.6 = 10$).)

f. Current ATIR is input minus backout from previous year. (Current ATIR for FY13 is FY13 Input (40) minus FY12 backout (10) equals 30.)

g. Adjusted ATIR is backout plus current ATIR for planning year. (Adjusted ATIR for FY14 is backout (7) plus current ATIR (30) equals 37.)

h. Output is adjusted ATIR minus attrition of 10 percent. Output for FY13 is adjusted ATIR (40) minus attrition (4) equals 36.

i. AOB and chargeable for FY12 is adjusted ATIR plus output ($40 + 36$) divided by 2 equals 38; multiplied by the number of days in the course (12 weeks = 82 days) $38 \times 82 = 3,116$; divided by 365; equals 8.5. Therefore, the AOB and chargeable for FY12 is 8.5.

PHASE-OUT ATIR CALCULATION WORKSHEET

1. PLANNING FACTORS

Course Length _____ weeks
Attrition Factor _____ percent
Tour Length _____ years
Backout Factor _____
Begin FY _____

2. PLANNING YEARS (FY) _____

3. FLEET REQUIREMENTS _____

4. REPLACEMENT _____

(Fleet Reqts/Tour Length)

5. ATTRITION _____

(Line 4 $\times$ Attrition Factor)

6. INPUT _____

(Line 4 + Line 5)

7. BACKOUT _____

(Backout Factor $\times$ Line 6)

8. CURRENT ATIR _____

(Line 6 - Line 7)

9. ADJUSTED ATIR (Line 7 + Line 8)	_____	_____	_____	_____	_____	_____	_____
10. OUTPUT (Line 9 - Line 5)	_____	_____	_____	_____	_____	_____	_____
11. AOB/CHARGEABLE (See A.4.i)	_____	_____	_____	_____	_____	_____	_____

Training Transfer Agreement

NOTE: The contents of this enclosure is provided as guidance only, it is not meant to be prescriptive in content or fully inclusive or required for all NTSP developments and therefore can be tailored by the developer as concurred with by the resource sponsor and the SYSCOM training system program office.

1. Purpose. To establish guidelines for development and submission of a training transfer agreement for planning, coordinating, and delivering new or modernized acquisition training system products identified in an NTSP and training system installation plan, per references (a) and (h).
2. Background. The training transfer agreement ensures that all training resources and capabilities are in place to support execution of the transfer of responsibility for a complete training system from the training support agency to the TA. The training transfer agreement is designed for the training support agency and TA to ensure effective training transfer.
3. Policy
 - a. An initial training transfer agreement shall be developed and approved prior to MS C for all ACAT I and ACAT II programs. The resource sponsor and DCNO (N4) will identify necessary resources to ensure successful sustainment of items identified in the training transfer agreement based on the agreed RFT date. Training risk will be prioritized prior to RFT for items in training transfer agreement that are not labeled with a "Green" status. In such cases, the appropriate resource sponsor will coordinate with NETC and TYCOM to develop a mitigation strategy for all items not in a "Green" status.
 - b. The training transfer agreement shall be implemented and updated to reflect changes. Training shall transition at RFT provided all items listed in the training transfer agreement are in a "Green" status or have an appropriate mitigation strategy. The training transfer agreement is not applicable to naval nuclear propulsion or strategic weapons systems.

4. Action

a. The training transfer agreement ensures successful transfer of training system products for subject acquisition system. This agreement validates the execution status of MPT items identified in the NTSP and training system installation plan to achieve RFT. The training transfer agreement is intended to be the coordination management tool to facilitate effective planning.

b. The following status indicators apply to the training items listed in the template. The training support agency has the latitude to tailor the status and justification of any items (e.g., funding or schedule changes), upon coordination with the resource sponsor and the TA.

(1) Red - Training system requirement is not programmed in POM or is unfunded to meet RDD or the deadline established by governing issuance. Mitigation response and corrective action required.

(2) Yellow - Training system requirement is programmed in POM, funded, but behind schedule to meet RDD. Mitigation response required.

(3) Green - Training system requirement is funded and on schedule to meet RDD.

c. Training transfer agreement signatories are the resource sponsor, PM, training support agency, TA and DCNO (N1).

Training Transfer Agreement Template

(SYSTEM NAME)

1. Purpose. The following agreement is provided to coordinate and ensure successful transfer of training system products for subject acquisition system. This agreement validates the execution status of MPT items identified in the NTSP and training system installation plan in order to achieve RFT. The training transfer agreement is intended to be coordination vice management tool to facilitate transition planning.

2. Status Indicators. The following status indicators apply to the training items listed in table 1. The training support agency has the latitude to tailor the status and justification of any items (e.g., funding or schedule changes), upon coordination with the resource sponsor and the TA.

a. Red - Training system requirement is not programmed in POM or is unfunded to meet RDD or the deadline established by governing issuance. Mitigation response and corrective action required.

b. Yellow - Training system requirement is programmed in POM, funded, but behind schedule to meet RDD. Mitigation response and corrective action required.

c. Green - Training system requirement is funded and on schedule to meet RDD.

3. Training Transfer Agreement Signatures

_____ Resource Sponsor	_____ Date	_____ DCNO N1	_____ Date
_____ Program Manager	_____ Date	_____ Training Agency	_____ Date
_____ Training Support Agency	_____ Date		

Table 1

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
1	Training Requirements Planning/FEA Validation	Training requirements planning is a collection of discreet training requirement determination tasks resulting in the development of the technical program data, part I of the NTSP. Part I states the underlying concepts that will govern operation, maintenance, training, the quantity and quality of personnel required, and the necessary training hardware. Training requirements planning is designed to provide MPT analysts with a systematic set of tasks that will determine the best possible MPT profile of a new acquisition or allow examination of alternative system concepts early in the acquisition process. The task based approach to training requirements determination also provides PMs with the flexibility to tailor the level of training analysis that will be applied to their program. FEA is a structured process used to examine MPT requirements and identify alternative approaches to training job tasks. The process identifies job tasks to be performed, analyzes the skills and knowledge needed to perform them, assesses the technologies available for training the skills and knowledge, performs a media analysis to recommend the best mix of delivery media, and provides cost and lead-time comparisons for the feasible alternatives. Requirement includes loading data into an applicable NTSP Web site (e.g., NKO, HARPS, SEATRACQ, AVTECHTRA).	OPNAVINST 1500.76C	Preliminary NTSP: FEA: Training Support Agency: TSRA: TDDCP: MC:	Acquisition resource sponsor/training support agency	

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ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
2	Job Task Analysis	Job task analysis is a product that provides a detailed listing of tasks necessary to perform a specific job or duty. Job related data should include its purpose, functional responsibility of personnel, required support equipment and materials, periodicity of tasks, and include system operations/maintenance and HSI factors. Requirement includes validating the job task analysis and loading data into an applicable NTSP Web site (e.g., AVTECHTRA, SEATRACQ, NKO, HARPS).	OPNAVINST 1500.76C, NETCINST 1510.4	Preliminary: Final: Update:	Acquisition resource sponsor/ training support agency	
3	NTSP	NTSPs are Navy and integrated Navy/Marine Corps documents which communicate MPT gaps and needs insupport of new and/or modernization programs. Once a final or updated NTSP is approved by the resource sponsor/advocate, the NTSP shall be used as the official record of the training planning process that facilitated the enterprise(s) definition of the system's MPT requirements. To ensure adequate planning, programming and budgeting of sustainment training throughout the FYDP, resource sponsors/advocates are required to obtain concurrence from DCNO (N1) prior to approving a final or updated NTSP.	OPNAVINST 1500.76C, approved NTSP	Preliminary: Final: Update:	Acquisition resource sponsor	
4	Manpower Estimate Validation and Approval	Manpower estimates are the primary documents addressing manpower affordability in terms of military end strength (including force structure, student end strength) and civilian work years. Include HSI requirements where an HSI plan exists, and ensure SYSCOM has certified through technical authority. Requirement includes loading data into an applicable NTSP Web site (e.g., AVTECHTRA, SEATRACQ, NKO, HARPS).	DoDI 5000.02 of 8 Dec 2008, SECNAVINST 5000.2E, OPNAVINST 1000.16K	MS B: (Initial) MS C: (Update) FRP: (Update)	DCNO (N1)	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
5	Training System Installation Plan	Training system installation plan is a plan prepared to: define facility requirements, including MILCON and special projects, for installation of the training system; identify all associated logistic support elements; and transfer training ownership responsibility from the training support agency to the TA. The training system installation plan is an integral part of the system acquisition process and supports introduction of new training systems and equipment, training system changes, and sustaining requirements. Close liaison between the training support agency and TA is key to developing training system installation plans to meet the established RFT date.	OPNAVINST 11102.2, OPNAVINST 1500.76C	Phase 1: Phase 2: Phase 3: MILCON required): RFT:	Acquisition resource sponsor/N4/training support agency/TA	
6a	Facilities Training Space MILCON	Identification of facilities (buildings, spaces, utilities, etc.) required and/or available. Coordination of facility impacts with the host command and requesting MILCON, if required. Learning resource center funding and installation.	OPNAVINST 11102.2, NAVSO P-1000, OPNAVINST 11010.20G	MILCON: Start Finish Classroom:	TA/N4	
6b	Facilities Training Space (requirements and funding)	Training support agency will provide facility data relative to trainer installation to the TA for the MILCON request and training system installation plan coordination.	NAVSO P-1000, OPNAVINST 1500.76C, approved NTSP	TTE (install): RFT:	Training support agency	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
7	Learning Objectives (for non-distributed learning)	Learning objectives describe the full range of task proficiencies, skills, and knowledge to be mastered by the trainee to achieve specified qualification level. Enabling, terminal, and supporting objectives describe the job behavior, conditions of performance, standards of performance, and test criterion. Requirement is TA concurrence and coordination with the program office and training support agency that learning objectives are defined with the appropriate standards, and the knowledge, skills, abilities, and media required to develop a learning solution.	NAVEDTRA 130 thru 134	TPP:	Training support agency/TA	
8	Training Materials Visual Information	Training materials visual information products (includes still and motion picture photography, video recording with or without sound, graphic arts, visual aids, models, displays, visual presentation services, and the support processes) which the training support agency deems necessary and that are called out in the products shall be delivered through life cycle support.	DODI 1322.26 of 16 Jun 2006, NETCINST 1500.10	RDD:	Training support agency	
9	Training Materials Interactive Materials	Content delivered as part of training that allows students to interact and receive feedback. Interactive multi-media instruction should be appropriate and cost effective to instruct, demonstrate, and practice the learning and performance required to achieve the learning outcome. All applicable interactive products are delivered as required by the training support agency.	DoDI 1322.26 of 16 Jun 2006, OPNAVINST 1500.76C, NETCINST 1500.10	RDD:	Acquisition resource sponsor/ training support agency	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
10	TTE/Training Device Funding	Validate all development, procurement, operation, and support costs are programmed and funded. Funding in place and contractor operated maintenance support.	NAVS0 P-1000, NETCINST 4700.1A	RDD:	Acquisition resource sponsor/training support agency	
11	TTE/Training Devices	Investment cost end items of operational equipment, devoted to the training and instruction of naval personnel, for which PMs have the responsibility for the design, development, modernization, configuration management, or selection for service or special use. Training devices and hardware and software which have been designed or modified exclusively for training purposes involving, to some degree, simulation or stimulation in its construction or operation, so as to demonstrate or illustrate a concept or simulate an operational circumstance or environment. Coordination of concurrency between the job task analysis and TTE must be approved before design and development. Scheduling of delivery, installation, and instructor training is required. Training device software updates, configuration management, engineering changes, and modernization are programmed by the resource sponsor and executed by the training support agency. Gaps in training devices must be addressed by training support agency/TA.	OPNAVINST 11102.2, OPNAVINST 1500.76C, NAVS0 P-1000	RDD:	Acquisition resource sponsor/training support agency/TA	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
12 a	TTE/Training Device Maintenance/Tech Support (Initial Training)	Government/contractor operation and maintenance support are provided for all training equipment in support of initial training. Initial training equipment and support items must take place prior to the program's IOC date or FRP decision. Contractor operated maintenance support and/or ILSP is in place. Maintenance and technical support are provided for all training equipment whether in support of initial or follow-on training.	NAVSO P-1000, OPNAVINST 1500.76C, OPNAVINST 11102.2	First convening of initial training:	Acquisition resource sponsor/training support agency	
12 b	TTE/Training Device Maintenance/Tech Support (Follow-on Training)	Government/contractor maintenance and technical support are to be provided for all training equipment in support of follow-on training.	NAVSO P-1000, OPNAVINST 1500.76C, OPNAVINST 11102.2	RFT:	Acquisition resource sponsor/TA	
13	Curriculum Development	Guidance for curriculum development. Job task analysis guides Navy curriculum developers in developing accurate and effective training materials for learning. These materials shall be approved by TA and delivered by the training support agency: (1) specify the tasks necessary to develop and support training materials, (2) establish the sequence of task performance, and (3) assign task performance responsibilities.	NAVEDTRA 130 thru 140	RDD:	Training support agency/TA	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
14	Training Guides/ Materials	The trainee guide is the primary trainee material, contains knowledge and skill objectives the trainee is to attain upon successful completion of the course, and may provide an outline of instruction. Additional material includes textbooks, information sheets, diagram sheets, assignment sheets, problem sheets, job sheets, and outline sheets. Training guides/material must be approved by the TA and delivered by the training support agency.	NAVEDTRA 130 thru 134	RDD:	Training support agency/TA	
15	Course Requirements	Training courseware, curricula, and manuals transferred by acquisition program management office to the designated learning center or TA.	NETCINST 1510.1A	RDD:	Training support agency	
16	Course Management	Once the curriculum development process is completed or the program office transfers curriculum development efforts to the TA, the course management process begins. The course management process includes revisions to existing courses, course master schedule, quota management.	NAVEDTRA 135, NETCINST 1510.1A	RDD:	DCNO (N1) / TA	
17	Distance Support	Distance support data shall be delivered via secure intranet or other appropriate means.	DODI 1322.26 of 16 Jun 2006, NETCINST 1500.14	RDD:	Acquisition resource sponsor/ training support agency/TA	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
18	NETC Business Plan	NETC assignment of learning Center or TA responsibilities to include corporate enterprise and training activity resource systems (CeTARS) course identification number and course processing.	NETCINST 1510.3	TPP: CeTARS load date:	TA	
19	Publications/IETM	Technical documentation for the system(s) that supplement and support training for procedures, installation, troubleshooting, and settings shall be delivered by the training support agency. These include the IETM, software and diagnostic manuals. Operations manuals describe the systems on every ship; they are created and updated by a wide range of authoring, engineering personnel including manufacturers. Maintenance manuals describe the fault diagnosis and repair of systems; they are created and updated by a wide range of authoring, engineering and logistics personnel including manufacturers. If delivering, the training support agency or PM must ensure training facilities exist.	OPNAVINST 1500.76C, NAVSO P-1000	RDD:	Acquisition resource sponsor/training support agency	
20	Accreditation Security Tempest Surveys and Certification (automated data protocol security)	Facility certified for delivery of classified information and materiel.	OPNAVINST C5510.93F, OPNAVINST 5239.1C, NETCINST 5510.1	Date certified if applicable	Training support agency/TA	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
21	OJT Handbook	The OJT handbook consists of a single lesson or a series of lessons designed to support selected learning objectives transitioned provided by the training support agency. Facility certified for delivery of classified information and materiel.	NAVEDTRA 130, 131	RFT date:	Acquisition resource sponsor/ training support agency/TA	
22	Individual Training Sustainment Funding	Military or civilian (including contractor) instructor requirements (MPN/O&M,N) are programmed prior to concurrence on a final or updated NTSP where increases or new NEC producing courses are required for operators and maintainers of new or modernized systems. Funds to support and sustain the conduct of training delivered by the training support agency are programmed and budgeted.	SECNAVINST 5000.2E, OPNAVINST 1500.76C, NAVSO P-1000	RFT date:	Acquisition resource sponsor/ DCNO (N1)/ TA	

ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
23	Individual's Account Funding Temporary Duty Instruction O&MN Temporary Additional Duty Travel Target Funding (TADTAR)	Temporary duty instruction and individual's account funds for training are programmed and budgeted for by resource sponsors and execution by DCNO (N1). Resource sponsors or designated agency ensures funding is programmed prior to approval on a final or updated NTSP. OM&N funds for training are provided to units by the resource sponsors. Resource sponsors shall approve NTSPs where new, sustained OM&N increases are planned for training. (NOTE: must consider impact on training OM&N TADTAR budget when choosing a training solution. Notify resource sponsor via TYCOMs and USFLTFORCOM if a new training system will obligate increases in OM&N TADTAR requirements for units to attend initial and follow-on training such as "F" schools.)"	NAVSOP-1000 (section 074201), OPNAVINST 1500.76C	RFT date:	Acquisition resource sponsor/ DCNO (N1)	
24	Navy Enlisted/ Officer Occupation Classification System Packages	Provides enlisted/officer occupational classification system changes and proposals for implementing changes.	OPNAVINST 1500.76C, OPNAVINST 1210.2C, OPNAVINST 1223.1C, NAVSOP-1000 (section 074201)	Prior to RFT date	Acquisition resource sponsor/ training support agency/ DCNO (N1)	

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ID #	TRAINING ITEM	DESCRIPTION	REFERENCE(S)	REQUIRED DELIVERY DATE	RESPONSIBLE AUTHORITY	STATUS (R/Y/G)
25	RFT	The date a training system and its associated logistics, maintenance, syllabus, and instructors are certified to be available for training at the learning facility. This date is predicated on the availability of a new, modified, or rehabilitated learning facility for training purposes. All aspects of the facility must be ready including building completion, completed site preparation, training system installation and testing, trained instructors, furnishings, e.g., non-technical collateral equipment. This is the ultimate planning date for the new, modified, and changed training system and its readiness for use.	OPNAVINST 1500.76C	Primary: Secondary: Iterative:	Acquisition resource sponsor/training support agency/TA	

GLOSSARY

1. Acquisition Strategy Document. A business and technical management approach designed to achieve program objectives within the resource constraints imposed. It is the framework for planning, directing, contracting for, and managing a program.
2. 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 AoA assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables. The AoA is one of the key inputs to defining the system capabilities in the JCIDS CDD.
3. Baseline Comparison System (BCS). A current operational system, or a composite of current operational subsystems, which most closely represents the design, operational, and support characteristics of the new system under development and which possesses mature manpower and training data.
4. Billet Training Profile (BTP). Documents-specific training required for each billet, including course and training description, periodicity, course number, reference, and training points.
5. Business Case Analysis (BCA). The BCA takes the proposed training systems from the FEA and assigns a cost to each. The BCA also captures any risk associated with each option. NETC will propose training systems, as a course of action (COA) for each training system, to the requirement sponsor and resource sponsor. Collectively, these entities will select one of the training systems (COA) that NETC can then use to develop or revise a course to satisfy the training requirement. It is the output of the BCA (decisions by the requirement sponsor and resource sponsor) that will determine the skill and knowledge outcomes that the course will be developed to achieve and tests built to assess. The output of the BCA is the input to NETC's TPP.

6. Commercial Off-The-Shelf (COTS). A procurement approach for non-developmental item that is available in the commercial marketplace.

7. Concept of Operations (CONOPS). A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The CONOPS is frequently embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. CONOPS is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose. Also called a commander's concept.

8. Configuration. A collection of an item's descriptive and governing characteristics, which can be expressed in functional terms, (e.g., what performance the item is expected to achieve) and in physical terms (e.g., what the item should look like and consist of when it is built).

9. Curriculum Materials. Includes all materials required for the delivery of information and the development of knowledge, skills, and abilities for a particular task.

10. Equipment Requirements List (ERL). Aviation, surface, and subsurface TTE requirements in support of naval training are identified by the training activities in ERLs. The installation of initial training equipment and support items must take place prior to installation at operational units.

11. Follow-on Training. Training that is required after the completion of initial training and synchronized to begin at RFT. This is training that has been developed and documented in a formal training plan or curricula. (Also known as: life cycle support training, pipeline training, and sustainment training).

12. Formal training. Training that has been developed and documented in a formal training plan or curricula. Normally provided as factory training or at a formal land based organic training site and is designed to train replacement personnel.

13. Front-End Analysis (FEA). A structured process used to examine manpower, personnel, and training requirements, and identify alternative approaches to training job tasks. The

process identifies job tasks to be performed, analyzes the skills and knowledge needed to perform them, assesses the technologies available for training the skills and knowledge, performs a media analysis to recommend the best mix of delivery media, and provides cost and lead-time comparisons for the feasible alternatives.

14. Human Systems Integration (HSI). The integrated analysis, design and assessment over the life cycle of a system and support infrastructure in the domains of manpower, personnel, training, human factors engineering, personnel survivability, habitability, safety, and occupational health.

15. Individual's Account. Requirements account for personnel in student, trainee, transient, or holdee status as well as Midshipmen on active duty. Holdees include patients, prisoners and personnel in the process of being separated.

16. Informal Training. Training that is not based on a formal written curricula. Often provided by the installation team as part of shipboard installation process.

17. Initial Operational Capability (IOC). The first attainment of the capability to effectively employ 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.

18. Initial Training. Operator and maintenance training resulting from the planned installation of new equipment. It is normally "one-time" training for personnel performing or involved in developmental and operational testing, for initial cadre maintainers, and for organic training activity instructors (train the trainers).

19. Interim Training. Training that is funded and implemented by the PM when follow-on training is required and is not ready for training prior to initial operating capability. Interim training shall continue until follow-on training is implemented.

20. Inter-service Training Review Organization (ITRO). The means by which the Services voluntarily coordinate inter-Service training.

21. Job Task Analysis. The systematic examination of what people do, how they do it, and what results they achieve by doing it. Job task analysis data defines the knowledge, skills and abilities required for a job. Job task analysis data are used in several ways: selection and promotion, career planning, performance evaluation, job design, organizational redesign, human resource planning, and especially training. In the training field, job task analysis data helps to evaluate training needs, determine topic learning objectives, and to develop course content. Job task analysis data is organized into two levels. Level 1 job analysis (what work is done) used for job design, position advertising, and career planning. Level 2 task analysis (how work is done) used to determine what the worker must know, identify specific equipment used, and to establish minimum performance standards. This information is a keystone of effective training needs analysis.

22. Urgent Need. An urgent need is an exceptional request from a Navy or Marine Corps component commander for an additional warfighting capability critically needed by operating forces conducting combat or contingency operations. Failure to deliver the capability requested is likely to result in the inability of units to accomplish their missions or increases the probability of casualties and loss of life. The DON urgent need process encompasses Navy urgent operational need and Marine Corps urgent universal need statement, and processes joint urgent operational needs that are assigned to the DON.

23. Key Performance Parameter (KPP). Those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the characteristics of the future joint force as defined in the CONOPS. KPPs must be testable to enable feedback from test and evaluation efforts to the requirements process. KPPs are validated by the JROC for JROC interest documents, and by the DoD component for Joint integration, Joint information, or independent documents. The JCIDS CDD and CPD KPPs are included verbatim in the acquisition program baseline.

24. Key System Attribute. An attribute or characteristic considered crucial in support of achieving a balanced solution or approach to a KPP or some other key performance attribute deemed necessary by the sponsor. Key system attributes provide

decision makers with an additional level of capability performance characteristics below the KPP level and require a sponsor four-star, defense agency commander, or principal staff assistant to change.

25. Milestones (MS). Major decision points that separate the phases of an acquisition program.

26. Military Characteristics (MC) Document. Required characteristics of a training device, which define the military functions, it must be capable of performing or simulating. MCs include physical and operational characteristics, but not technical characteristics. The MC document is developed after the media selection process and the NTSP.

27. Military Occupational Specialty (MOS). The duty or related group of duties that a Soldier or Marine by training, skill, and experience is best qualified to perform and that is a basis for the classification, assignment, and advancement of enlisted personnel.

28. Navy Enlisted Classification (NEC). System of which NEC coding is a part. It supplements the enlisted rating structure in identifying personnel on active or inactive duty and billets in manpower authorizations. NEC codes identify a non-rating wide skill, knowledge, aptitude, or qualification that must be documented to identify both people and billets for management purposes. Additionally, an NEC can be used to identify special circumstances or situations with approval via the NEOCS process.

29. Navy Enlisted Occupational Classification System (NEOCS) Board. The NEOCS is the method the Navy uses to identify enlisted personnel skills and the requirements associated with these skills. The system forms the basis for actions taken concerning enlisted personnel planning, manpower management, procurement, training, advancement, promotion, distribution, assignment, and mobilization. The NEOCS Board serves as the central point for changes to the NEOCS. It reviews change proposals in terms of overall system direction and makes recommendations as appropriate. The board authorizes administrative actions for NEC changes and makes recommendations to DCNO (N1) for enlisted rating structure changes.

30. Navy Officer Billet Classification (NOBC). A classification expressed as a four-digit code, which identifies officer billet requirements and officer occupational experience, acquired through billet experience or through a combination of education and experience.

31. Navy Officer Occupational Classification System (NOOCS) Board. The NOOCS is the method the Navy uses to identify skills, education, training, experience, and capabilities relate to both officer personnel and manpower requirements. This system forms the basis for officer personnel planning, manpower management, procurement, training, promotion, distribution, career development, and mobilization. The NOOCS Board serves as the central point for changes to the officer occupational classification system. The board makes recommendations as appropriate and authorizes administrative actions which change the classification structure.

32. Navy Training Systems Plan (NTSP). The primary document for defining MPT requirements and resources for new systems development, and modernization of existing systems. The NTSP identifies the resources required to establish and maintain an effective training program throughout the life cycle of the acquisition system. Much like the system it addresses, the NTSP goes through periodic update to reflect advances in technology to sustain and improve combat effectiveness. The NTSP is a life cycle document, which identifies the resources required to establish and maintain an effective training program throughout the life cycle of the new systems' development and modernization. It controls planning for meeting the training requirements of the system, and identifies personnel required to install, operate, maintain, or otherwise use the system. NTSPs are required for every Navy and integrated Navy and Marine Corps system. The approved NTSP is the official tasking document for establishing the systems MPT requirements identified within the document.

33. Navy Training Systems Plan Conference (NTSPC). At the NTSPC, the resource sponsor assembles key stakeholders to validate the NTSP, address major issues, and make decisions on requirements gaps and resources issues. The PM is responsible for coordinating and resolving minor issues with NTSP principals before and after the NTSPC. NTSPCs are normally scheduled following 45-calendar day draft NTSP requirement validations for

final and updated NTSPs. However, the decision to convene and host an NTSPC rests with the program's resource sponsor.

34. Non-Developmental Item. Any hardware or software item that does not require development, such as commercially available items, items developed by other services or agencies, or items developed by foreign governments with which the U.S. Government has a mutual cooperation agreement. Items requiring only minor modification to meet the established requirements of the procuring agency are also considered non-developmental item.

35. Participating Acquisition Resource Manager (PARM). An independent systems integrator who develops sub-systems and equipment in parallel with ship construction to meet a defined in-yard date.

36. 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. PEOs receive program functional support (engineering, logistics, contracting, accounting, legal, etc.) from SYSCOM commanders. Under the direction of the PEO, assigned PMs may assume the duties and responsibilities of PM, training support agency, and PM for system development or acquisition, modernization, and configuration management. For PEOs having responsibility for ship and aircraft acquisition, modernization, configuration management, and life cycle management, the PEO shall coordinate with all PMs providing systems, subsystems, and equipment to the ship and aircraft to ensure that training goals, objectives, responsibilities, and schedules are defined.

37. Program Manager (PM). The PM is a military or civilian official who is responsible for managing acquisition, modernization, and configuration management programs.

38. Ready for Training (RFT). The date a training system and its associated logistics, maintenance, syllabus, and instructors are certified to be available for training at the learning facility. This date is predicated on the availability of a new, modified, or rehabilitated learning facility for training purposes. All aspects of the facility must be ready including

building completion, completed site preparation, training system installation and testing, trained instructors, furnishings, e.g., non-technical collateral equipment. This is the ultimate planning date for the new, modified, and changed training system and its readiness for use.

39. Resource Advocate (RA). An RA has the same responsibilities as a resource sponsor with the exception of funding. DC AVN is an RA under the CMC, per title 10, and works in conjunction with the resource sponsor.

40. Resource Sponsor. The resource sponsor determines program objectives and time-phased support requirements and appraises programs, readiness, and military worth for a given weapon system function or task in support of the goals and objectives. The resource sponsor provides day-to-day OPNAV management of the assigned programs by acting as the central point of contact for the hardware systems coordinators and the PM. A resource sponsor is an OPNAV principal official responsible for an identifiable aggregation of resources that constitute inputs to warfare and supporting warfare tasks.

41. Simulation. The imitation of the operation of a real-world process or system over time. The act of simulating something first requires that a model be developed; this model represents the key characteristics or behaviors of the selected physical or abstract system or process. The model represents the system itself, whereas the simulation represents the operation of the system over time.

42. Student Profile. The term includes the individual being trained, the individual learning from the interactive courseware, including course and training description, periodicity, course number, reference and training points. Used to construct individual learning situations to acquire knowledge and skills required for accomplishment of specific tasks.

43. System. A grouping of functionally related subsystems and equipment operating together to support a major function or meet a tactical purpose. The term system includes subsystems, system of systems, family of systems, and equipment.

44. Systems Command (SYSCOM). The SYSCOMs are responsible for implementing policy and procedures for execution of assigned

acquisition and modernization programs. They manage the ILSP through their functional and program management organizations.

45. Technical Authority. The authority who is responsible to establish, monitor and approve technical standards, tools, and processes in conformance with applicable DoD and DON policy, requirements, architectures, and standards. Technical authorities are appointed by each SYSCOM.

46. Technical Training Equipment (TTE). Investment cost end items of operational equipment, devoted to the training and instruction of naval personnel, for which PMs have the responsibility for the design, development, modernization, configuration management, or selection for service or special use.

47. Training Agency (TA). An office, bureau, command, or headquarters exercising command of and providing support to some major increment of the DON's formalized training effort. Depending upon the level of oversight required, the TA may be NETC, a learning center, or other designated organization.

48. Training Device. Hardware and software which have been designed or modified exclusively for training purposes involving, to some degree, simulation or stimulation in its construction or operation, so as to demonstrate or illustrate a concept or simulate an operational circumstance or environment.

49. Training Device Decision Coordinating Paper (TDDCP). A document used to identify and evaluate alternative approaches to the design of the training system, and to recommend the best approach.

50. Training Effectiveness Evaluation (TEE). An analysis of training capability and potential value of a training system in enabling students to achieve program-learning objectives.

51. Training Effectiveness Evaluation Agent (TEEA). The resource sponsor's selection as to who, or what organization, is to conduct the TEE. The TEEA must have no organizational conflict of interest, must possess or be provided dedicated resources, and must be able to report results directly to the resource sponsor. The TEEA could be the resource sponsor, TA, PEO, SYSCOM, PM, contractor, or a team of personnel from these

organizations (with a designated lead activity). Results of a TEE will be provided in a letter signed by the senior member of the TEEA or lead activity.

52. Training Effectiveness Evaluation Plan (TEEP). A plan for evaluating the effectiveness of a training system in meeting its criteria for specific training objectives.

53. Training Materials. See curriculum materials.

54. Training Requirements Planning. Training requirements planning is a collection of discreet training requirement determination tasks resulting in the development of the technical program data, part I of the NTSP, the output of which is the preliminary NTSP. Part I states the underlying concepts that will govern operation, maintenance, training, the quantity and quality of personnel required, and the necessary training hardware. Training requirements planning is designed to provide MPT analysts with a systematic set of tasks which will determine the best possible MPT profile of a new acquisition or allow examination of alternative system concepts early in the acquisition process. The task based approach to training requirements determination also provides PMS with the flexibility to tailor the level of training analysis that will be applied to their program.

55. Training Situation Document. A document used to verify the effectiveness of a training system to meet existing training needs and to survey training programs and technologies for applicability to new training needs.

56. Training Support Agency. The office, bureau, command, or headquarters responsible for supporting the TA by providing material and other forms of support within the cognizance of the office, bureau, or command involved. The training support agency provides initial training for the equipment, system, or subsystem until the TA can acquire the capability for training. The training support agency is an activity with fiscal responsibility for supporting the TA by providing material and other forms of support within the cognizance of the office, command, or headquarters involved. If development, acquisition, modernization, or configuration management is involved, the training support agency will be the PM who is assigned funding

responsibility for all investments and expense costs required to turn over a training system end item and allow the TA to sustain the capability for training.

57. Training System. A systematically developed curriculum including, but not necessarily limited to curriculum, including distributed learning, in-service training, on board training, self-paced computer-based training, classroom aids, training devices, operational equipment, embedded training capability, and trained personnel to operate, maintain, or employ a system. The training system includes all necessary elements of logistics support.

58. Training System Installation Plan. The training system installation plan is the means by which the Navy coordinates the design, acquisition, and incorporation of a training system into a schoolhouse. A properly developed training system installation plan: (1) defines facility requirements, including MILCON and special projects planning, for installation of the training system; (2) identifies all associated logistic support elements; and (3) transfer training ownership responsibility from the training support agency to the TA. The training system installation plan is an integral part of the system acquisition process as it supports introduction of new training systems and equipment, incorporates training system changes, and identifies sustaining requirements. Close liaison between the training support agency and TA is key to developing training system installation plans to meet the resource sponsor established RFT date.

59. Training System Program Office. Office responsible for technical and team training which supports the existing fleet training requirements and acts as the focal point for all new acquisition training requirements approved by the resource sponsor for their respective SYSCOM.

60. Training Transfer Agreement. The training transfer agreement is a coordination document designed primarily for the training support agency and TA to ensure effective planning for transfer of training.

ACRONYMS

ACDU	active duty Navy
ACAT	acquisition category
AD	active duty (Marine Corps)
AMD	activity manpower document
AoA	analysis of alternatives
AOB	average on board
AR	active reserve (Marine Corps)
AT	annual training
ATIR	annual training input requirement
AVTECHTRA	Aviation Technical Training (Web site)
BCA	business case analysis
BCS	baseline comparison system
BTP	billet training profile
CAF	course attrition factors
CANTRAC	catalog of Navy training courses
C5I	command, control, communications, computers, combat systems, and intelligence
CBA	cost benefit analysis
CDD	capability development document
CeTARS	corporate enterprise and training activity resource systems
CFE	contractor furnished equipment
CFY	current fiscal year
CIN	course identification number
CIV	civilian
CM	corrective maintenance
CMC	Commandant Marine Corps
CMS	contractor maintenance service
CNO	Chief of Naval Operations
COA	course of action
COMOPTEVFOR	Commander, Operational Test and Evaluation Force
CONOPS	concept of operations
COTS	commercial off-the-shelf
CPD	capability production document
DADMS	Department of the Navy Database Application Management System
DC AVN	Deputy Commandant for Aviation
DCNO	Deputy Chief of Naval Operations
DCPDS	Defense Civilian Personnel Data System
DoD	Department of Defense
DON	Department of the Navy
DT	developmental test

EIC	equipment identification code
ENL	enlisted
ERL	equipment requirements list
FEA	front-end analysis
FH	flight hour
FMF	Fleet Marine Force
FRP	full rate production
FTS	full-time support (Navy)
FY	fiscal year
FYDP	Future Years Defense Plan
GD	pay grade
GFE	government furnished equipment
GPETE	General Purpose Electronic Test Equipment
GPTE	General Purpose Test Equipment
HARPS	Human Analysis and Requirements Planning System (Web site)
HSI	human systems integration
IBR	initial baseline review
ICD	initial capabilities document
IDTT	inactive duty training travel
IETM	interactive electronic technical manual
ILS	integrated logistics support
ILSP	integrated logistics support plan
IOC	initial operational capability
ITRO	Inter-service Training Review Organization
JCIDS	Joint Capabilities Integrated Development System
JROC	Joint Requirements Oversight Council
KPP	key performance parameter
MC	military characteristics
MILCON	military construction
MIP	maintenance index pages
MMH	maintenance man-hours
MOS	military occupational specialty
MPMC	Military Personnel, Marine Corps
MPN	Military Personnel, Navy
MPT	manpower, personnel, and training
MRC	maintenance requirement cards
MS	milestone
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAVMAC	Navy Manpower Analysis Center
NAVSEASYSOM	Naval Sea Systems Command
NEC	Navy enlisted classification
NEOCS	Navy Enlisted Occupational Classification System

NETC	Naval Education and Training Command
NITRAS	Navy Integrated Training Resources and Administration System
NKO	Navy Knowledge Online (Web site)
NOBC	Navy officer billet classification
NOOCS	Navy Officer Occupational Classification System
NTSP	Navy Training Systems Plan
NTSPC	Navy Training Systems Plan Conference
OFF	officer
OJT	on-the-job training
O&MMC	Operation and Maintenance, Marine Corps
O&MN	Operation and Maintenance, Navy
OPNAV	Office of the Chief of Naval Operations
OPTEVFOR	Operational Test and Evaluation Force
PAF	pipeline attrition factor
PARM	participating acquisition resource manager
PCS	permanent change of station
PEO	program executive officer
PFY	previous fiscal year
PM	program manager
PMS	planned maintenance system
PMOS	primary military occupational specialty
PNEC	primary Navy enlisted classification
POA&M	plan of actions and milestones
POM	program objective memorandum
PP	pay plan
PPBE	planning, programming, budgeting and execution
PQS	personnel qualification standards
RA	resource advocate (USMC)
RDD	required delivery dates
RFT	ready for training
RFU	ready for use
SEATRACQ	NAVSEASCOM Training Acquisition (Web site)
SECNAV	Secretary of the Navy
SELRES	selected reserves (Navy)
SETR	systems engineering technical review
SLEP	service life extension program
SMCR	Selected Marine Corps Reserves
SME	subject matter expert
SMD	ship manpower document
SMOS	secondary military occupational specialty
SNEC	secondary Navy enlisted classification
SPETE	special purpose electronic test equipment
SPTE	special purpose test equipment

SQMD	squadron manpower document
SRA	shop replaceable assembly
ST	special tools
SYSCOM	systems command
TA	training agency
TAD	temporary additional duty
TADTAR	temporary additional duty travel target funding
TDDCP	training device decision coordinating paper
TEE	training effectiveness evaluation
TEEA	training effectiveness evaluation agent
TEEP	training effectiveness evaluation plan
TFMMS	total force manpower management system
TSRA	training systems requirements analysis
TTE	technical training equipment
TYCOM	type commander
UIC	unit identification code
USFLTFORCOM	United States Fleet Forces Command
USMC	United States Marine Corps
WRA	weapon replaceable assembly