Naval Education and Training Command

NAVEDTRA 130A
July 1997

Support Manual for MIL-HDBK-1379-2

TASK BASED CURRICULUM DEVELOPMENT MANUAL

VOLUME III MANAGERS GUIDE

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LETTER OF PROMULGATION FOR NAVEDTRA 130A

1. This guidance manual has been extensively revised. Most of the revisions are in response to user comments and reflect a continuing effort to increase the manual's utility to the training field. NAVEDTRA 130A supercedes and replaces NAVEDTRA 130.

2. A paradigm shift is taking place in Navy training materials development as we move from products developed within a rigid framework, and move toward design and development of training materials using a process oriented Instructional Systems Design/Systems Approach to Training (ISD/SAT). The ISD/SAT process is described in MIL-HDBK 1379-2 (9 June 1997). NAVEDTRA 130A supports the ISD/SAT process and training materials designed and developed using NAVEDTRA 130A are fully compatable with the ISD/SAT concept.

3. The procedures in this manual follow a Task Based Curriculum Development method. This manual is intended for use by military, civil service, and contractor personnel engaged in Navy training materials development and modification.

4. The task based method contains six interrelated phases: Plan, Analyze, Design, Develop, Implement, and Evaluate. Guidelines for the first four of these phases are contained in this manual. Guidelines for the implementation and evaluation phases are contained in NAVEDTRA 135A, Navy School Management Manual (October 1995).

5. Procedural guidance for development of training materials following a Personnel Performance Profile based method is published in NAVEDTRA 131A.

6. Corrections and comments concerning this manual are invited and should be addressed to Chief of Naval Education and Training, Education Training Systems (ETS) division.

7. Reviewed and approved.

F. M. DIRREN, JR.
Acting

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Chief of Naval Education and Training Education and Training Systems Division (ETS)

NAVEDTRA 130A

TASK BASED CURRICULUM DEVELOPMENT MANUAL

MANAGERS GUIDE

PUBLISHED BY DIRECTION OF CHIEF OF NAVAL EDUCATION AND TRAINING

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CHANGE RECORD

Number and Description of Change	Entered By	Date

FOREWORD

SCOPE

NAVEDTRA 130A: TASK BASED CURRICULUM DEVELOPMENT MANUAL provides guidance for developing training materials. The processes and illustrations found in NAVEDTRA 130A reflect the experience of subject matter experts, curriculum developers and decision makers who approve Navy training material developed by Navy curriculum developers and civilian contractors. NAVEDTRA 130A describes and illustrates all facets of planning, analysis, design, and development of curricula. NAVEDTRA 130A provides step-by-step guidance to curriculum developers for developing job efficient and effective training material.

Volume I of this manual—Developers Guide—contains guidelines for the development of training programs. It is designed for use by the individual actually revising or developing training materials.

Volume II of this manual—Sample Products—provides samples of each of the management and curriculum documents in a format that is consistent with the guidelines discussed in Volume I.

Volume III of this manual—Managers Guide—is designed for the individual charged with the management of a course revision or development. It describes approval points, approval authorities, and responsibilities. The volume addresses the manager's responsibilities in each of the six phases of TASK BASED CURRICULUM DEVELOPMENT.

RELATIONSHIP TO DOD STANDARDS/SPECIFICATIONS

Chapter titles in this manual were derived from various Department of Defense (DOD) Standards and Specifications documents, which this manual supports. The name assigned to individual documents developed in accordance with this manual must correspond with the document name used herein. Exceptions to this rule shall not be granted.

CONTRACTUAL USE OF MANUAL

NAVEDTRA 130A sample documents may also be used as an exhibit in a contract as service-specific guidance for use by civilian contractors developing Navy training material.

HOW TO USE NAVEDTRA 130A

NAVEDTRA 130A provides guidance and illustrations for use in the planning, analysis, design, development, implementation, and evaluation of curricula. This manual has been designed so you may read the entire chapter or go to any subject area and perform the required task.

Volume I

Volume I contains the step-by-step guidance for developing effective training materials. All chapters in Volume I were written so you can follow along with the corresponding figures, diagrams, and job aids presented in Volume II of this manual. Open Volume I to the subject you wish to learn about. Open Volume II to the related sample document referenced in Volume I. It is important to go to Volume II when referenced and study the appropriate illustrations.

Volume II

When you have located the sample document in Volume II that corresponds to the chapter you have selected in Volume I, follow along in Volume II as you read Volume I. For example, if you are developing a Course Training Task List, turn to the sample course in Volume II.

Volume III

Volume III contains management information important to planning, analysis, design, development, implementation, and evaluation of curricula. The chapters in Volume III establish the requirements for the submission and review of the various products developed during the curriculum development process.

Take a few moments and turn to the different volumes and see how they relate.

TABLE OF CONTENTS

LIST OF ACRONYMS

CANTRAC	Catalog of Navy Training Courses
CCA	Curriculum Control Authority
CCMM	Course Curriculum Model Manager
CDP	Course Data Processing
CIN	Course Identification Number
CISO	Curriculum & Instructional Standards Office
CM	Corrective Maintenance
CMS	Course Master Schedule
CNET	Chief of Naval Education and Training
CTTL	Course Training Task List
DAVIS	Defense Auto Visual Information System
DDA	Discussion-Demonstration Activity
DOD	Department of Defense
DOR	Drop On Request
DP	Discussion Point
EO	Enabling Objective
FAL	Fault Applicability List
FEA	Front End Analysis
ICW	Interactive Courseware
IMM	Instructional Media Material
LO	Learning Objective
LP	Lesson Plan

LIST OF ACRONYMS (Continued)

LSAR	Logistics Support Analysis Record
NEC	Navy Enlisted Classification
NETPDTC	Naval Education Training Professional Development and Technology Center
NITRAS	Navy Integrated Training Resources Administration System
NMPC	Navy Military Personnel Command
NOBC	Navy Officer Billet Classification
NOTAP	Navy Occupational Task Analysis Program
NTP	Navy Training Plan
OCCSTD	Occupational Standards
OJT	On-The-Job Training
PM	Preventive Maintenance
POA&M	Plan of Action and Milestone
PPP	Personnel Performance Profile
PQS	Personnel Qualification Standards
RIA	Related Instructor Activity
RRL	Resource Requirements List
SME	Subject Matter Expert
TA	Training Agency
TCCD	Training Course Control Documents
TG	Trainee Guide
TO	Terminal Objective

LIST OF ACRONYMS (Continued)

TPP	Training Project Plan
TSA	Training Support Agency
TTO	Training Time Out
VI	Visual Information
WC	Wall Charts

INTRODUCTION

CHAPTER 1

TRAINING MATERIALS DEVELOPMENT

INTRODUCTION

- The procedures for developing training materials following the Task Based Curriculum Development method are divided into six interrelated phases - Plan, Analyze, Design, Develop, Implement and Evaluate.
  - PLAN PHASE identifies resource requirements and the sequence of events in the development process
  - ANALYZE PHASE produces the job tasks, task sequence, level of performance, and the skills and knowledges which must be taught
  - DESIGN PHASE produces the course learning objectives and an instructional sequence
  - DEVELOP PHASE produces the instructional materials for the instructor and the trainee
  - IMPLEMENT PHASE begins when the Curriculum Control Authority **(CCA)** has approved a course for use and the Functional Commander authorizes the course to be taught
  - EVALUATE PHASE consists of the evaluation and revision of the training materials based on assessment of the training materials and the performance of the graduates in the fleet
- This manual covers the Plan, Analyze, Design, and Develop Phases. In the volumes comprising this manual the steps required and approval points for products developed in each of these phases are discussed. The Implement Phase is introduced as part of Chapter 7 of this volume. Implementation and Evaluation are also addressed in NAVEDTRA 135A: Navy School Management Manual. The overall process is illustrated in Figure 1-1.

- NAVEDTRA 130A: Task Based Curriculum Development Manual is designed to guide Navy activity personnel (curriculum developers) in the development of accurate and effective training materials. This manual:
  - Specifies the tasks necessary to develop and support training materials
  - Establishes the sequence of task performance
  - Assigns task performance responsibilities

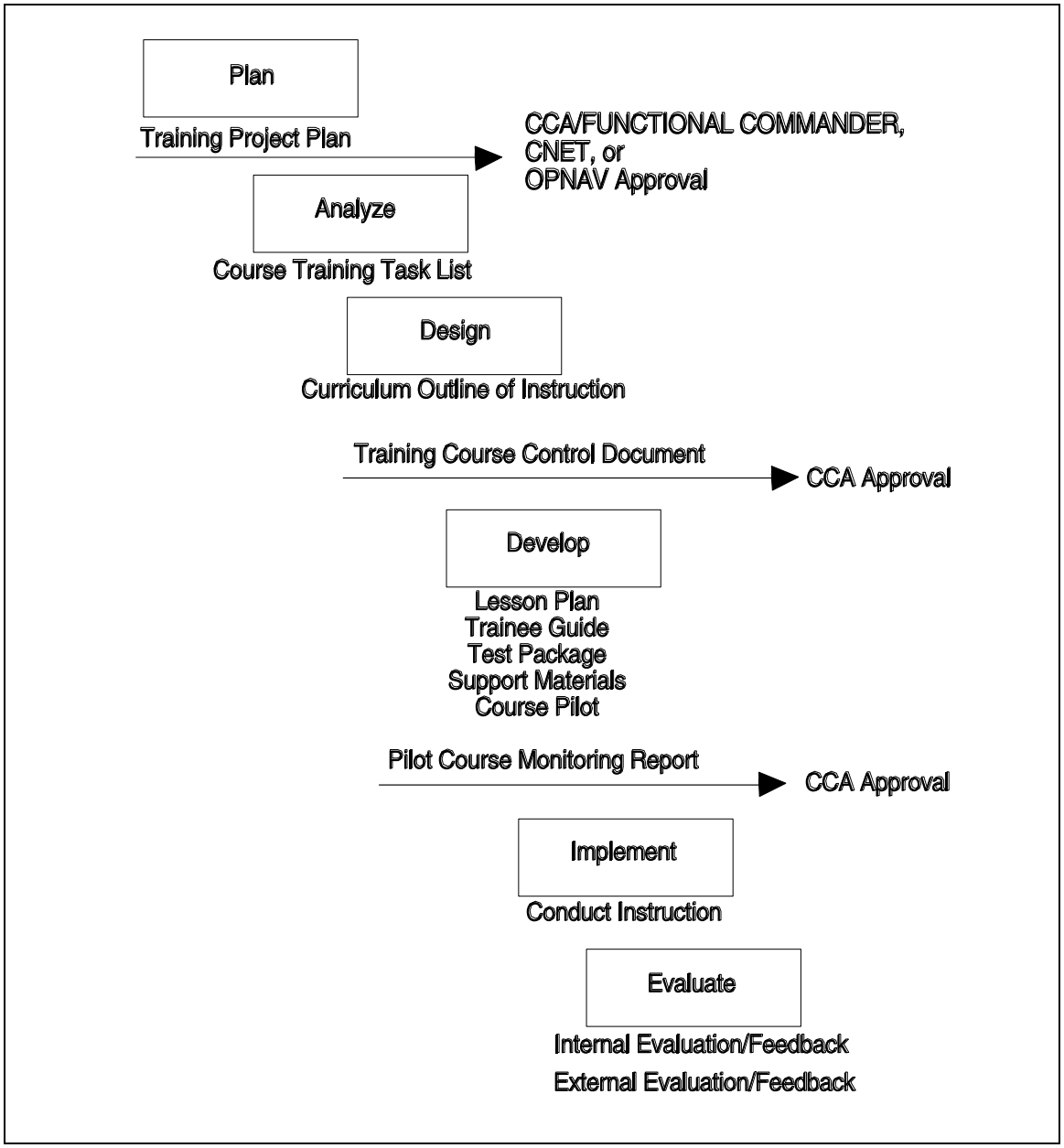

FIGURE 1-1: CURRICULUM DEVELOPMENT PROCESS

SECTION 1.0 TRAINING MATERIALS

Training materials include management materials, curriculum materials, and support materials. The training materials produced by Navy in-house developers follow the guidelines of these manuals.

> Recognizing the complexity of training materials development and the external factors which influence curriculum development projects, this manual is **NOT** to be used as a prescriptive document. Waiver of any stage or procedure within a stage is at the discretion of the Curriculum Control Authority **(CCA)**.

1.1 Management materials

Management materials define training requirements and provide an overall plan for the accomplishment of these requirements. Management materials for development include:

- Training Project Plan **(TPP)**
- Course Training Task List **(CTTL)**
- Training Course Control Document **(TCCD)**
- Testing Plan
- Pilot Course Monitoring Report
- Documentation required or appropriate for audit trail

1.2 Curriculum materials include all materials required for the presentation of information and the development of skills in formal school training. Under this definition, curriculum materials include:

- Lesson Plan **(LP)**
- Trainee Guides **(TG)** (or instruction sheets)
- Test Materials
- Other materials used for instruction

1.3 Support materials are instructional materials and other devices used in support of formal instruction, informal instruction, or for independent study. Some of the most common support materials are:

- Visual Information (**VI**)
  - Wall Charts
  - Films
  - Videotapes
  - Transparencies
- Instructional Media Material (**IMM**)
  - On-the-Job **(OJT)** Training Handbook
- Training devices
- Textbooks
- Technical manuals
- Other materials helpful in the preparation of lesson topics (Fault Insertion Guide, Instructor Utilization Handbook)

Volume I provides guidelines for development of curriculum materials. Volume II provides sample packages which meet the guidelines in Volume I. The remaining chapters in this volume establish requirements for the submission and review of various management and curriculum materials.

SECTION 2.0 TRAINING MATERIALS SUPPORT

All training materials are maintained current and accurate by surveillance and modification efforts.

2.1 Surveillance

- Constant surveillance is required to detect changes in documentation, equipment, or procedures that impact training materials. Procedures for identifying training material deficiencies, for recommending changes, and for coordinating recommended changes are given in Chapter 7 of this volume.

2.2 Training Materials modifications

- There are four categories of training materials modifications: **Interim Change, Change, Technical Change**, and **Revision**. The definition for each category is found in NAVEDTRA 135A. Procedures for incorporating training materials modifications are described in the sections for those materials in Volume III, Chapter 7 of this manual.

SECTION 3.0 PROGRAM PARTICIPANTS

The following participants have vital roles in the development and support of training materials:

3.1 Training Agency (TA)

- An office, bureau, command, or headquarters exercising command of and providing support to some major increment of the Department of the Navy's formal training effort. OPNAVINST 1500.44 identifies the **TAs** as:
  - Chief of Naval Education and Training (**CNET**)
  - Naval Medical Command (**NAVMEDCOM**)
  - Naval War College (**NAVWARCOL**)
  - U.S. Naval Academy (**USNA**)
  - Commander in Chief, U.S. Pacific Fleet (**CINCPACFLT**)
  - Commander in Chief, U.S. Atlantic Fleet (**CINCLANTFLT**)
  - Chief of Naval Reserve (**CHNAVRES**)

3.2 Training Support Agency (TSA)

- An office, command, or headquarters responsible for providing material and other forms of support to the **TA.**
  - The **TSA** is normally a SYSCOM responsible for providing training support to the **TA** for a piece of equipment, a subsystem, or a system

> **EXAMPLES:** Initial (factory) training, curriculum development, instructional media materials, training equipment, pre-faulted modules, training equipment life-cycle maintenance support, and curriculum surveillance services.

- Whether involved in a training development project, or in training support, a **TSA** is usually appointed directly or indirectly by **CNO**

- The **TSA** liaisons with the **TA**, or a **TA**-appointed Curriculum Control Authority, to assure products or services meet training command standards and fleet requirements

3.3 Functional Commander

CNET has designated Functional Commanders to plan, manage, and budget for training courses across broad functional areas. **CNET's** Functional Commanders are:

- Deputy for Shore/Technical Training **(CNET T2)**

- Commander Training Command U.S. Atlantic Fleet (**COMTRALANT**)

- Commander Training Command U.S. Pacific Fleet (**COMTRAPAC**)

- Chief of Naval Air Training (**CNATRA**)

3.4 Curriculum Control Authority (CCA)

To support **CNETs** functions as a **TA**, **CNET** designates a Functional Commander to have curriculum control of specific courses/training programs.

- The **CCA** functions identified in this manual are **CNET's TA** responsibilities which are delegated to the Functional Commander having curriculum control authority

- **CCA** approves instructional methods and materials

- A single alphabetic character is used in the first position of the Course Identification Number **(CIN)** to identify the command which has Curriculum Control Authority. Volume I of NAVEDTRA 10500 (CANTRAC) identifies the command having curriculum control for existing courses.

3.5 Training Facility (TF)

A Navy command which has a primary mission of conducting or supporting training. A school or institution at which courses are offered. The **TF** maintains selected audit trail documents, annually reviews training material and makes recommendations to the **CCMM** for changes or revisions, and maintains training equipment and facilities for the training courses they teach.

3.6 Course Curriculum Model Manager (CCMM)

A **CCMM** is assigned by the **CCA** with the responsibility for conducting and maintaining a specific course.

- The **CCMM** initiates curriculum development and training materials modification, conducts curriculum review and analysis of feedback, maintains course audit trail documentation, and develops and approves changes

- Any or all of the course preparation, support, and change responsibilities may be assigned to and carried out by the **CCMM**

- The **CCMM** normally functions as the developer for Navy- developed courses

SECTION 4.0 APPLICABLE DOCUMENTS

The documents listed below are the primary resources to be used by activity developers in the design and development of training materials. Use of documents and manuals in effect on the training materials commencement date stated in the project plan is assumed. Later issues of these specifications, standards, documents, and publications, or new specifications, standards, documents, and publications, may be used subject to joint agreement of the **CCA** and activity curriculum developers.

4.1 Standards, General

In June 1994 the Secretary of Defense directed that "Performance specifications shall be used when purchasing new systems, major modifications, upgrades to current systems, and non-developmental and commercial items for programs in any acquisition category (in lieu of Military Specifications and Standards)." **Source: SECDEF memo, Subject: Specifications and standards - A New Way of Doing Business, dated 29 June 1994.** Consequently, references to MIL-STDS have been deleted.

4.2 Publications

Chief of Naval Operations

OPNAVINST 1500.2 *Responsibilities and Procedures for Establishment and Coordination of Contractor Developed Training for Military and Civilian Personnel*

OPNAVINST 1500.8 *Navy Training Plan Process*

OPNAVINST 1500.19 *Authority and Responsibility of Fleet Commanders in Chief Atlantic and Pacific and the Chief for Naval Education and Training for Naval Education and Training Activities Ashore*

OPNAVINST 1500.27 *Interservice Training*

OPNAVINST 1500.44 *Responsibilities for Development of Personnel Training Requirements and Related Plans*

OPNAVINST 1500.52 *Surface Warfare Training System Policy, Organization, and Responsibilities*

OPNAVINST 1500.69 *Navy Training Requirements Review (**NTRR**)*

OPNAVINST 1500.71 Navy Training Feedback System (**NTFS**)

OPNAVINST 1550.6 *Review of Navy Formal School Curricula and Instructional Literature*

OPNAVINST 1550.8 *Development, Review, and Approval of New or Modified Training Course Curricula*

OPNAVINST 3500.34 *Personnel Qualification Standards (**PQS**) Program*

OPNAVINST 5100.8 *Navy Safety and Occupational Safety and Health Program*

OPNAVINST 5100.19 Navy Occupational, Safety, and Health (**NAVOSH**) Program Manual for Forces Afloat

OPNAVINST 5100.23 *Navy Occupational Health (**NAVOSH**) Program Manual*

OPNAVINST 5290.1 *Naval Imaging Program (**NAVIMP**) Policy and Responsibilities*

OPNAVINST 5510.1 *Department of the Navy Information and Personnel Security Program Regulation*

OPNAVINST 11102.1 *Policies and Procedures for Training Equipment Facility Requirements **(EFR)***

NAVPERS 18068 *Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards*

Chief of Naval Education and Training

NAVEDTRA 130A *Task Based Curriculum Development Manual*

NAVEDTRA 131A *Personnel Performance Profile Based Curriculum Development Manual*

NAVEDTRA 134 *Navy Instructor Manual*

NAVEDTRA 135A *Navy School Management Manual*

NAVEDTRA 10500 Catalog of Navy Training Courses (CANTRAC)

NAVTRASYSCEN P-530 *Naval Training Systems Center Guide*

CNETINST 1500.1 *Catalog of Navy Training Courses (**CANTRAC**), NAVEDTRA 10500*

CNETINST 1500.15 *Accreditation of Navy Schools*

CNETINST 1500.18 *Responsibilities and Procedures for NAVEDTRACOM Participation in Contractor Developed Training*

CNETINST 1500.20 *Safety and Procedures for Conducting Training*

CNETINST 1500.21 *Development of Interactive Courseware (**ICW**) in Support of Instructional Systems*

CNETINST 1500.23 *Interservice Training Review Organization (**ITRO**)*

CNETINST 1500.24 T*raining Performance Evaluation Board (**TPEB**)*

CNETINST 1500.25 *Surface Warfare Training Requirements Review (**SWTRR**)*

CNETINST 1500.28 *Total Quality Instruction*

CNETINST 1510.1 *Navy Integrated Training Resources and Administration System (**NITRAS**)*

CNETINST 1540.7 *Responsibility for Revising Navy Occupational Task Analysis Program (**NOTAP**) Survey Booklets and Procedures for Requesting NOTAP and Occupational Standards (**OCCSTD**) Data and Services*

CNETINST 1540.13 *Preparation of Course Master Schedule and Master Schedule Summary Sheet*

CNETINST 1543.4 *Technical Training Equipment (**TTE**)*

CNETINST 1550.10 *Production, Approval, Implementation, and Cancellation of Training Programs and Materials*

CNETINST 1550.21 *Occupational Standards (**OCCSTDS**) Training Task Analysis (**TTA**) Procedures*

CNETINST 3500.3 *Personnel Qualification Standards (**PQS**) Program*

CNET 5100.2 *Safety and Occupational Health Program*

CNETINST 5290.3 *Chief Naval Education and Training (**CNET**) Visual Information Program Management*

CNETINST 5311.1 *Computation of Instructor Requirements*

CNETINST 7500.2 *Technical Training Audit Program **(TTAP)***

CNETINST 11102.2 *Policies and Procedures for Training Equipment Facility Requirements (**EFR**)*

Training Requirements Data Base Annual Report - Naval Education and Training Program Management Support Activity ***(NETPDTC)***

SECTION 5.0 SECURITY REQUIREMENTS

Classified information will be handled in accordance with the Department of the Navy Supplement to the DOD Information Security Program Regulation (OPNAVINST 5510.1).

SECTION 6.0 SAFETY REQUIREMENTS

Safety, occupational health, and hazard awareness information must be incorporated into the curricula of all appropriate training courses, as prescribed by CNETINST 1500.20 and in accordance with NAVEDTRA 135A.

SECTION 7.0 SUMMARY

This chapter has provided an overview of the training materials process management. The individuals assigned the responsibility of managing the development or revision of training materials should become familiar with the guidelines for the management, curriculum, and support materials discussed in the three volumes of this manual as well as the applicable documents listed in this chapter.

PLAN PHASE

CHAPTER 2

TRAINING PROJECT PLAN

INTRODUCTION

A curriculum development project is a complex undertaking, bringing together a wide range of human and material resources for the goal of creating quality training. Curriculum development consists of six phases, beginning with the **Plan Phase**. This phase consists of gathering information and building a curriculum development plan. The output product of this phase is the **Training Project Plan (TPP)**. When approved, the TPP becomes the authorization to undertake a course revision or a new course development project through the **Pilot** and **Implementation Phases**, and initiate resource requisitions. A **TPP** is also required to *cancel* a course. This chapter provides amplifying information, sources of data, and a structure for developing and assembling a **TPP**.

GOVERNING INSTRUCTIONS AND DIRECTIVES

- Throughout this chapter, numerous instructions are cited. This is done to insure that actions governed by instructions are carried out in accordance with the latest directives. Accordingly, instructions cited are assumed to be the most current, and series suffixes are not used. A manager should review the instructions listed in Chapter 1 to ensure that applicable requirements are considered throughout the curriculum development process.

- CNETINST 1550.10 is the primary instruction governing requirements for a **TPP**, and its approval. The information in this chapter must be applied in accordance with the current issue of this instruction.

SECTION 1.0 PLANNING FOR COURSE REVISION, NEW COURSE DEVELOPMENT, OR COURSE CANCELLATION

- Most **TPPs** will be for revisions to existing courses – reflecting the constant introduction of new equipments, processes, and technologies into the fleet. Although fewer in number, new course development projects respond to new requirements that cannot be met by revising an existing course. Courses are canceled when they become obsolete, or the training they provided is absorbed by other courses.

- The Plan Phase is the first of the six phases of training materials development process. The output, the **TPP**, provides the blueprint and justification for the revision of an existing course, development of a new course, or course cancellations. "Revision," for our use is defined in NAVEDTRA 135A. In general, a revision means that the course mission has changed, course length is increased, or additional resources are required. A *decrease* in course length may also fall under the definition of a revision, and the CCA may direct submittal of a **TPP**.

COURSE REVISION: Prior to starting the revision or development of new training material for existing training courses, a **TPP** will be developed and approved in accordance with CNETINST 1550.10.

NEW COURSE DEVELOPMENT: Completing a **TPP** for new course development requires establishing a *Course Identification Number* (**CIN),** *Course Data Processing Code* **(CDP)**, initiating entries for the *Catalog of Navy Training Courses* (**CANTRAC**) and *Navy Integrated Training Resources and Administration System* (NITRAS), identifying preliminary resource requirements, and possibly planning for facilities requirements. This entails careful research and documentation. See NAVEDTRA 135A for specific guidance of establishing a new course.

COURSE CANCELLATION: CNETINST 1550.10 and NAVEDTRA 135A contain procedures for initiating and documenting the cancellation of an existing course or training program. A **TPP** is required.

SECTION 2.0 JUSTIFICATION FOR CURRICULUM DEVELOPMENT, REVISION, AND CANCELLATION

There has to be a reason (or reasons) to undertake the development of a new course, the revision of an existing course, or to cancel a course. The justification for initiating these actions may come from:

- Navy Training Plans (**NTPs**) (OPNAVINST 1500.8)
  - Introduction of new weapons systems or engineering, or changes/modifications to existing systems
  - "Life-cycle" documents reviewed and updated annually
- Tasking by higher authority
  - OPNAV. Introduction of new technologies, techniques, or equipment not supported by an **NTP** which can replace existing subjects, be added to an existing course, or require a new course.
  - OPNAV. Fleet manning requirements may dictate an increase (or decrease) in student throughput, which requires an adjustment in resources
  - CNET. Addition of "by direction" topics or courses, or mandated course reductions.
- Internal course reviews and local command initiatives
  - Course reviews or data analysis determine students are not meeting course objectives and need additional "hands on" time that can only come from extending the course length
  - Combining, re-sequencing or deleting subjects permits objectives to be met in less time and the decrease in instructional periods impacts instructor manning

- Data analysis or studies may show that a new course can "common core" subjects which are now taught in several separate courses

- External course reviews
  - Indicates problems with course content (obsolete objectives) or structure in terms of graduates not being able to perform on the job

- Surveillance and external feedback
  - The Navy Training Feedback System (**NTFS**) (OPNAVINST 1500.71) and CNET Training Performance Evaluation Board (**TPEB**) (CNETINST 1500.24) provide input mechanisms, data analysis, and feedback to ensure that training ashore meets fleet requirements.
  - Navy Occupational Task Analysis Program (**NOTAP**) (CNETINST 1540.7) lists the jobs performed by a rating, who performs them, and the frequency of performance. A survey of jobs performed within a rating may indicate a need to revise training.
  - Navy Training Requirements Review (**NTRR**) (OPNAVINST 1500.69) consists of course reviews by Fleet, Training Command, and Systems Command representatives to assess existing training and to identify inefficiencies, redundant or unnecessary material.

SECTION 3.0 TRAINING PROJECT PLAN (TPP)

- The **TPP** presents a blueprint for curriculum development which contains course data, justifications for the course revision, new course development, or course cancellation. It includes impact statements, milestones, and resource requirements.

Each project plan will be as unique as the project it describes. Your project may not require every item of information included in this chapter or shown in the Volume II **TPP** sample. Alternatively, your project plan may benefit from additional items and enclosures. The **CCA** and Functional Commander, working with the **TPP** developer, shall designate mandatory **TPP** elements, and possibly call for additional data which will reinforce the project plan. A sample package may be provided to guide developers, or additional requirements may be levied by command instructions. All data should be researched, referenced, and as accurate as possible. However, the **TPP** is recognized as a *planning* document, subject to revision.

- The following paragraphs provide some general information on Training Project Plans

3.1 Purpose and Use of a TPP

The **TPP** describes all training and training support elements required to provide trained personnel to operate and maintain systems or equipments, or perform tasks and functions. It provides a *Plan of Actions and Milestones* (**POA&M**) to achieve a predetermined implementation date. A **TPP** describes all the factors necessary to prepare and conduct a successful training program and attain optimum use of personnel, hardware, and funds. The course revision or development described in the **TPP** should meet, and not exceed, the training requirement.

In the case of a course cancellation, the **TPP** provides justification for the action and a blueprint for reallocation of resources.

3.2 Categories of Resources

Course development and, often, course revisions require resources to develop or implement the proposed course. Course cancellations may also require resources for such things as the removal and redistribution of equipment. Resources fall into four broad categories: (1) facilities, (2) funding, (3) personnel, and (4) equipment. All four categories require long lead-time planning. An approved **TPP** is the authority to submit requests for resources.

- Facilities includes new construction, and modification of existing structures such as interior arrangement, power requirements, and air conditioning. Basic categories are MILCON and Special Projects, with the difference being cost, approval authority, and lead time.

- Funding includes all developmental and material costs anticipated for the project through the pilot convening

- Personnel includes instructional and support personnel to conduct the course. Any *increase* in personnel must be identified and justified. A *decrease* in course length may also require a manpower adjustment.

- Equipment includes specialized items, systems, tools, or equipments required to support and conduct training

SECTION 4.0 INITIATING A TPP

The decision to prepare a **TPP** can come from the commanding officer or officer in charge of the training activity or from higher authority.

- When Functional Commanders in addition to the CCA are involved in teaching a course, preparation of a TPP should be coordinated with these functionals.

SECTION 5.0 LOCATING DATA FOR COMPLETING A TPP

- Any source which can be used to justify the project and identify the costs can be used in completing a **TPP**. Examples of some sources are:

- Technical manuals. Manuals should be used to the maximum extent possible as the basis for course content, equipment, and related material.

- Logistic Support Analysis Report (**LSAR**). A listing of jobs, and the detailed tasks to accomplish each job.

- Navy Training Plans (**NTP**)

  - Part II Billet Requirements

  - Part III Personnel and Training Requirements

  - Part IV Training Logistic Support Requirements

- NITRAS data. Master Course Reference File (**MCRF**) displays outyear student loading.

- Resource Requirements. A composite listing of material necessary to implement the course at each site.

SECTION 6.0 SELECTING CURRICULUM DEVELOPMENT METHOD

- The Navy uses several different methodologies, or systems, for developing training programs. The Task Based method and the Personnel Performance Profile/Training Path System method account for most training program development. Either system is equally capable of being used to develop all varieties of training programs. Each has characteristics and unique features that make it better suited for developing certain training programs.

6.1 **The Task Based** method was designed for developing training programs that teach performance of a job or function in which operation or maintenance of the hardware is usually incidental or secondary to actual performance of the job. This manual – NAVEDTRA 130A: Task Based Curriculum Development Manual – provides details on this method.

6.2 **The Personnel Performance** Profile/Training Path System (**PPP/TPS**) system was originally designed for developing training programs that teach operation and maintenance of "hardware," such as equipments, subsystems, or a system. The **PPP/TPS** system is advantageous where equipment or procedures are subject to frequent updating or change. NAVEDTRA 131A: Personnel Performance Profile Based Curriculum Development Manual provides details on this method.

6.3 CNETINST 1550.10 contains guidelines for determining the system for development of training materials.

- Which system is selected should largely be determined by the needs, desires, and experience of those training activities which will implement and conduct the training program. It is the training activities' receptiveness to the delivered training program which will largely determine whether the training program succeeds or fails.

SECTION 7.0 TPP OUTLINE

The **TPP** shall contain all the data and information necessary to identify and justify the course revision or development and the resources required for the training course under consideration. Data for course cancellations is also provided. Specific elements of data and information shall include the following items **where applicable.** A sample **TPP** is provided in Volume II of this manual.

7.1 Cover Page, to include:

- The phrase "Training Project Plan for"
- Complete course title (actual or proposed), with no abbreviations
- Course Identification Number (**CIN**), if known. A new course development may not have a **CIN** assigned at the point the **TPP** is developed. **CINs** are assigned by the **CCA** as per guidance in CNETINST 1500.1.
- The activity or organization for which the **TPP** is prepared. This is the sponsoring or tasking agency, usually the **CCA**.
- Name and address of the entity preparing the **TPP**.
- Month and year that the **TPP** is prepared. This is a publication date and may differ from the transmittal or approval letter date. For a revision, the date is shown in parentheses under the original publication date.
- Security classification (if required). **TPPs** should be unclassified if possible. See OPNAVINST 1550.1 for additional guidance on security classification.

7.2 Table of Contents. The table of contents shall be page 2, immediately after the cover page.

7.3 Justification. Cite specific references, correspondence, results of conferences, **NTP**, **FEA** data, etc., where available.

- Reasons for and anticipated benefits of the proposed project:
  - Provides required training
  - Reduced course length
  - Increased student throughput
  - Impact of skill training requirements on the occupational classification system. A new course in "pipeline" training may provide an entrance or exit point to put graduates into the fleet earlier.
  - Reduced attrition and attendant costs by providing "common core" training
  - Cancellation of obsolete or redundant training
- Sources of information or data
  - Tasking by higher authority. Cite specific correspondence.
  - Internal review has indicated a need for training best met by a new course or a revision to an existing course
  - External feedback/review. Current graduates are not able to perform on the job, or lack specific skills.
  - Job task analysis (**JTA**) data. **JTAs** are normally accomplished as part of the curriculum development Analyze phase, but **JTA** data should be used, if available.

- **Impact if the course development, or revision is not undertaken**.

  - Clearly describe the impact on fleet requirements and capabilities if the proposal is not undertaken.
    Note that this is NOT the same as "Justification." "Justification" is the authority behind the proposed revision. "Impact" refers to the consequences to the Navy of maintaining training in the current mode.

  EXAMPLES:

  - Shortfall in numbers of trained personnel
  - Inability to operate or maintain updated fleet equipment
  - Dollars **not** saved by deleting obsolete objectives and consolidating remaining objectives into a shorter course

7.4 Course Data Pages, to include:

- The phrase “Course Data”
- Course title, with no abbreviations
- Course Identification Number (**CIN**), if assigned
- Course Data Processing code (**CDP**). This is a NITRAS identifier which will be different for each training site.
- Course Status. Identify whether new start, revision, or cancellation of training.
- Course Mission Statement. This is the purpose of the course, and responds to each of the questions below. Indicate if the course mission statement will change as a result of the course revision. The examples below illustrate the types of statements used to answer each question.

WHO is to be trained?“....technicians in the IC rating (E-5 through E-7)....”, “....entry level enlisted Radiomen....,”“....Aviation Electronics Technicians, Aviation Fire Control Technicians, Aviation Antisubmarine Warfare Technicians and Aviation Electrician's Mate's....”

WHAT job will the person be trained to perform?“ ....operation and maintenance of the Inertial Navigation System....”, “....instruction and practical application in security fundamentals, basic message format, teletype typing proficiency, message tape preparation, teletypewriter circuit operating procedures, and basic safety precautions....”,“....AN/USM-484 Hybrid Test Station operational procedures, test procedures, emergency procedures, and scheduled maintenance procedures....”

DEGREE OF QUALIFICATION, or how well the person will be able to perform the job? “....to perform tasks at the apprentice (journeymen, master) level....”, “....to the accuracy specified in supporting documentation....”

WHERE will the person utilize the training? “....ashore and onboard amphibious assault (LHD-and LHA-1) class ships, inport and underway....”, “....in afloat and shore communication installations....”,“....in the AIMD working environment....”

CONDITIONS under which the graduate will perform on the job. “....under supervision and using technical references....”, “....in both field and shop conditions....”, “....under all conditions of ship readiness....”

- Occupational classification. Applicable rate, rank designator, **NEC** or **NOBC** of the intended input population, and the **NEC** or **NOBC** earned

- by course graduates. If it is proposed that an **NEC** will be issued or changed as a result of the revised course, consult NAVPERS 18068 for guidance.

- Prerequisites. List the prerequisites required of the trainees that are scheduled to attend the course. Prerequisites may be equipment, rate or rating specific, basic skills, or course specific. Prerequisites normally relate to prior training or skills, not ASVAB scores.

- Course overview. A listing of course subjects. Note any changes from the previous project plan. For a new course this will be a description of the skills and knowledge to be attained. This is not intended to be the equivalent of a curriculum outline, or to contain objectives. The overview helps the Training Agency see what the course will actually contain. A proposed Course Master Schedule prepared in accordance with CNETINST 1540.13 can serve this purpose.

- Course length. Both current and planned course lengths in calendar days should be given.

- Training sites. Commands or activities where the course will be taught. This information can be combined with the **CDP** codes, if known. For multi-site training, an asterisk (*) may be used to indicate the CCMM.

- Number of convenings. Number of classes per year for each site, both current and planned.

- Class capacity. Specify the current and planned minimum and maximum class capacity, and if the class capacity will vary between teaching sites.

- Planned Average on Board (**AOB**), current and planned. This is:

$$\frac{\text{Course length in calendar days X Planned input}}{365}$$

Planned input should include:

USN
Reserves of all categories
Other Services
International training students

- Annual student throughput, current and planned

- Estimated instructor and support requirements

  Provide the total number of instructor and support personnel required, current and/or planned. CNETINST 5311.1 describes the factors required for standard instructor computation. Many of the factors listed, such as classroom and laboratory ratios and instructional periods, may not be known at this point. If the standard computations cannot be applied, provide the rationale for the instructor and support manning figure used.

7.5 Safety Risks and Hazardous Materials exposure.

Describe anticipated safety risks and exposure to hazardous materials which are absolutely necessary for training realism. Indicate if the proposed training will be designated “high risk” and fall under the purview of CNETINST 1500.20. The incorporation of occupational safety and health considerations into training are defined in OPNAVINST 5100.23, and CNETINST 1500.20.

7.6 Curriculum development method recommended.

Curriculum development follows either task-based procedures (NAVEDTRA 130A Task-Based Curriculum Development Manual), or PPP/TPS based procedures (NAVEDTRA 131A: *Personnel Performance Profile Based Curriculum*

Development Manual). Some of the considerations used to determine the most appropriate curriculum development method may be found in CNETINST 1550.10. Specify the development method recommended for use and the rationale for its selection.

- List training materials to be produced under the curriculum development procedure selected

7.7 Compensation.

Provide recommended sources of compensation for both manpower and funding. Identify possible course cancellations/reductions, cross utilization of instructors, etc.

7.8 Milestones.

A time-phased narrative or graphic representation commencing with **TPP** approval, milestones shall include identification of major developmental products or events relating to the training materials development method selected, and end with implementation. Projected completion dates for each key event shall be indicated.

7.9 Resources requirements.

Provide *for each site* a best estimate of the known and anticipated resources necessary to implement the training. For a revision, this will be the additional resources required. For a new development, this will be all resources needed to conduct the course. Identification of these resources does not constitute approval of the resources; *CNET Program Automated Tracking System* **(CPATS)** document numbers, cost account codes, and *Program Objective Memorandum* **(POM)** documentation must be forwarded.

> It is recognized that not all resource requirements may be known when the **TPP** is submitted. This is an initial submission, subject to revision.

- Manpower. For new courses or revisions, identify officer, enlisted and civilian billets required, the number of billets authorized, and the number of compensated billets that can be provided, and the difference (if any). For cancellations, identify all billets that will be offered up. Specify differences (if any). For questions on multi-service manpower issues, contact the CNET Interservice Training Review Organization (ITRO).

- Funding. Identify by appropriation, such as *, Operation and Maintenance Navy* **(O&MN)**, *Other Procurement, Navy* **(OPN)**, and *Activity Group/Subactivity Group* **(AG/SAG)** the one-time (initial) or recurring costs. For existing courses identify only the additional costs required to implement training.

  Specific expense items should be identified and include the following: Curriculum development, supplies, travel, equipment, publications, and printing.

  Contractor costs should be identified, including curricula development, instructors, and the operation and maintenance of training equipment.

- Equipment. Related end-item equipment. "Related" means those specialized items, systems, or equipments required to support and conduct training. For cancellations, identify the disposition/ reassignment of equipment.

  List items, providing as much information as necessary to describe the item, such as:

  Item name or official nomenclature,

  Part number,

  Cognizance Code/National Item Identification Number/Special Material Identification Code (**COG/NIIN/SMIC**) *(Formerly National Stock Number*)

Any other identifying codes:
Acquisition Advice Code (AAC)
Commercial and Government Entity (CAGE) code
Source, Maintenance, and Recoverability (SM&R) code

NOTE: When identifying your items, use only the categories and codes that apply to your project. Use your command's logistic resource manager for assistance.

Indicate the number of items needed to support the course. Multiple training sites may require a further breakdown by site. In cases where some items are currently on hand, list the *additional* items needed.

Provide unit of issue and unit costs Technical Reference: Use when a technical reference provides source data, amplifying information, or justification for an item.

EXAMPLE: Maintenance Trainers. Normally, weapons system trainers designed to support on-equipment training, specially developed maintenance trainers, simulators/ simulated trainer panels, and other simulator panels.

EXAMPLE: Technical Training Equipment (**TTE**). Operational equipment used for training purposes. Actual Weapon Replaceable Assemblies (**WRAs**), Line Replaceable Units (**LRUs**), Subsystem Replaceable Assemblies (**SRAs**), Shop Replaceable Units **(SRUs**),Circuit Card Assemblies (**CCAs**), weapons pylons, engines or equipment normally a part of a weapon system. Refer to CNETINST 1543.4 for information on **TTE**.

- Test Equipment

  Special Purpose Electronic Test Equipment (**SPETE**). Test equipment designed to generate, modify or measure a range of functional parameters for a single electronic system or equipment. For example, test equipments which perform diagnostics and troubleshooting on specific aircraft. Normally provided by the SYSCOM.

  General Purpose Electronic Test Equipment (**GPETE**). Electronic test equipment which may be used to test two or more equipments or systems, of basically different design, by generating, modifying, or measuring a range of electronic functions.

  EXAMPLE: Oscilloscopes, multimeters

  Where **GPETE** is not being provided by a SYSCOM or other sponsor, the Command requests the equipment using form OPNAV 1543/1. **GPETE** is normally a long lead-time item.

- Visual Information (**VI**) devices such as projectors, video playback equipment, overhead projectors, projector screens, movie projectors, television monitors, etc.

- Visual Information (**VI**) aids. Provide a summary listing containing an estimate of the **VI** aids required to conduct the proposed training course. OPNAVINST 5290.1 is the basic reference for these items.

- Special-purpose tools, alignment jigs, and fixtures. GO/NO-GO gauges, adapters, and other tools especially designed for maintenance of weapon systems and normally listed in the technical manual.

- Common hand tools. Tools required to perform the training which are not unique to the equipment.

- Consumables. Items that are required for the course, such as magnetic computer disks, special printing paper, plating materials, connector parts, rags, cotton swabs, etc. List quantity required per class. Do not include items that are provided to the students and then retrieved after class.

- Training Devices. Engine cutaways, models, inert bombs/weapons, and other devices especially prepared for demonstration and handling safety. Unless provided by an OPNAV sponsor, these items can have exceptionally long development and procurement lead-times. NAVTRASYSCEN P-530 Navy Training Systems Center Guide refers.

  Specialized maintenance trainers and operator training devices (support training but cannot be substituted for operational equipment)

  Operational and training software, if not included with the hardware. Also, if the software must be modified, the scope of the modifications shall be included. This category also includes Interactive Courseware (**ICW**).

  General purpose equipment dedicated to a specialized task. For example, general purpose computers “wired in” and used to control training devices.

- Support equipment (Non-Avionic). Maintenance stands, bomb skids, engine stands, mobile hydraulic and electrical power units, mobile air conditioning units, engine removal trailers, and similar materials. NOTE: This category does not include line maintenance test sets.

- Calibration standards. Calibration standard test equipment used in the calibration of electronics equipment and test sets. These items are identified by a “-CS” at the end of the part number.

- Faultable/Prefaulted modules. Modified modules, or modules that will be modified with insertible faults or malfunctions, for use in troubleshooting and performance testing.

- Trainer-peculiar materials. Items that are used in direct support of the trainer, such as trainer-peculiar special tools or special support equipment.

- Miscellaneous materials. Special clothing, goggles, standard work benches, special furniture, equipments and items which do not fall under any category identified above.

- Ordnance/Ammunition/Pyrotechnics. Live, dummy, or inert. List by description and identifying numbers. Per the Conventional

  Ammunition Integrated Management System (CAIMS), SPCCINST 8010.12, include the Navy Ammunition Logistics Code (NALC) for each item. The NALC can be appended to the NSN for each item. Specify requirement per student and per class.

- Stand-alone computer systems and peripherals. For example, desktop computers and printers used to deliver instruction. *Not* administrative or office support equipment.

- Equipment refurbishment. Available equipment which can be used to support training after repair, overhaul, or modernization.

- Publications. Commercial, DOD, and military service publications or technical manuals required to conduct training. List by title, identification number, quantity required, and supplier.

- Training material. The type and estimated quantity of training materials needed to conduct training. This includes instructor guides, trainee guides, instruction sheets, etc. Quantities and costs should be estimated through course pilot, or until training activity funding support can be established.

- Facilities. Identify requirements for **MILCON** or special projects for facilities modification. These requirements are highly situation-specific. See OPNAVINST 11102.1 and CNETINST 11102.2 for detailed facilities documentation requirements.

EXAMPLE: A major training device needs to be relocated by the command as part of a course development or revision project. Or, additional electrical power and cooling are needed to support new equipment being installed in an existing space. This can also include accommodations and adaptations for safety, such as vapor/gas eductors, filtration, incineration, hazardous materials storage, handling, and disposal facilities.

Early consultation with the training activity facilities manager is essential to determine the scope of the modification or construction, the level of approval and funding required.

Funding thresholds are:

Less than $100,000 = Minor construction
Greater than $100,000 = Special Project
Greater than $200,000 = Military Construction (**MILCON**)

SECTION 8.0 TPP APPROVAL

A **TPP** is submitted via the chain of command for approval at the appropriate level as specified in CNETINST 1550.10.

> Approval of the **TPP** may be used as authorization for submission of **CPATS, POM** and procurement of long lead-time items such as major training devices.

ANALYZE PHASE

CHAPTER 3

COURSE TRAINING TASK LIST

INTRODUCTION

The purpose of the **Analyze Phase** is to determine what will be taught in the new or revised course. The analysis conducted is a continuation of the preliminary analysis completed during the **Plan Phase**. All available documents/data are examined and analyzed to determine what is necessary to do a job. The product of this phase is the Course Training Task List **(CTTL)** which provides a list of the duties, tasks, and/or skills that are selected for training.

SECTION 1.0 COURSE TRAINING TASK LIST (CTTL)

- The **CTTL** serves as the foundation for writing the terminal and enabling objectives which comprise a course of instruction and carry out the course mission statement

- A **CTTL** will most commonly be developed to support new course development projects. A **CTTL** may be used for course revisions, depending on the scope of the revisions and the availability of front end analysis data.

- The **CCMM** will review all Navy developed **CTTLs** for completeness and compliance with NAVEDTRA 130A guidelines and approve their use in support of continued curriculum development. The **CTTL** is considered a working document; finalized **CTTLs** are not normally forwarded for **CCA** approval. However, the **CCA** has the option of calling for a review and approval of developmental products at any time.

1.1 CTTL Development

The **CTTL** represents the foundation of knowledge and skills upon which a course is developed. The **CTTL** will be developed in accordance with guidance contained in Volume I, Chapter 3 of this manual.

- Development of a new **CTTL** will generally be accomplished by the developer assigned by the **CCA**

- **CTTL** development should meet the timeline established by the Training Project Plan Milestones. Often, during the Curriculum development process, the original milestone dates are impacted by such things as delays in facilities, unavailability of necessary equipment, or lack of subject matter expert support. When this occurs, the **CCA** should be notified and a revision to the milestones proposed for approval.

- Forward advance copies of the **CTTL** to the **CCA** and other **TF**, as required. Review comments directed to the **CCMM**.

- CCMM reviews **CTTL** for adequacy and compliance with NAVEDTRA 130A. Approve **CTTLs** for use in development of course objectives.

SECTION 2.0 SUMMARY

As a working document, routine surveillance of the **CTTL** for a course is not required.

DESIGN PHASE

CHAPTER 4

TRAINING COURSE CONTROL DOCUMENT

SECTION 1.0 INTRODUCTION

The Training Course Control Document (TCCD) is the primary developmental and management document for a course. The approved TCCD serves as the authorization for further development and provides the information needed by curriculum developers to create the training materials for a course. Thus, careful attention must be paid to the detail, content, and structure of the TCCD. Volume I, Chapter 5 of this manual provides guidance on compiling the TCCD.

1.1 Description and Application of the TCCD

The TCCD is a collection of products which expresses in summary form, the content, structure, and essential management information for a course. Most of the information has already been developed; in the TCCD it is placed in a standard format for submittal. The TCCD consists of the following items:

- Front Matter
- Curriculum Outline of Instruction
- Annexes

> The content, structure and essential management information contained in the **TCCD** is used to implement and manage the course. For this reason it must accurately reflect the final course and must be kept updated.

1.2 TCCD Components

The following is a description of each **TCCD** deliverable:

- **Front Matter**:
  - Cover page
  - Letter of promulgation

- Table of contents
- Foreword (if required)
- Course data
- Trainee data. Consists of the following:
  - Personnel physical requirements
  - Security clearance
  - Prerequisites
  - Obligated service
  - **NOBC/NEC** earned

- **Curriculum Outline of Instruction**

  - In the Curriculum Outline of Instruction, Units and Lesson Topics consisting of terminal and enabling objectives are displayed in the order they will be taught
  - Volume I, Chapter 4 of this manual describes the development of the Curriculum Outline of Instruction

- **Annexes**

  Training course control document annexes provide the resource requirements and time allocations for the training course.

  - **Resource Requirements List (RRL)**. It lists all the resources required to conduct the course. See Volume I, Chapter 2 and Chapter 5 of this manual for more details on the development of the **RRL**.

- **Course Master Schedule** (**CMS**). The **CMS** and **CMS** Summary shall be developed in accordance with CNETINST 1540.13.

1.3 Review and Approval

The **CCA** will review and approve all **TCCD** deliverables.

SECTION 2.0 LETTER OF PROMULGATION

- Upon completion of the Pilot Course, the **CCA** will authorize the use of the curriculum through a Letter of Promulgation. This authorization is a permanent part of the course audit trail. It is placed in the **TCCD** front matter immediately following the cover page. When the **TCCD** is submitted, a page marker is inserted where the Letter of Promulgation will later be placed.

- Authorization to implement the course after the curriculum has been approved and all required resources are in place is the responsibility of the Functional Commander. See Chapter 6 of this volume and NAVEDTRA 135A for additional information.

SECTION 3.0 SURVEILLANCE

Each **CCMM**, for courses under their cognizance, will:

- Review **TCCD** for currency, adequacy, and accuracy whenever a course change or revision is undertaken
- Review technical changes to hardware or documentation and evaluate them for impact on existing **TCCD** and curricula
- Make recommendations and provide impact comments and/or draft **TCCD** for the **CCA** when appropriate changes are indicated for their courses

DEVELOP PHASE

CHAPTER 5

CURRICULUM AND SUPPORT MATERIALS

INTRODUCTION

Curriculum Materials include all materials required for the presentation of information and the development of skill. Support materials are instructional materials and other devices used to support instruction.

SECTION 1.0 CURRICULUM CONTROL, DEVELOPMENT AND COORDINATION

1.1 Control of Curricula

- Control of curricula will be accomplished by the Curriculum Control Authority (**CCA**) who assigns coordination, development, and support responsibilities to participants. This is to ensure that:
  - Curriculum materials are analyzed for accuracy and effectiveness
  - The need for course revisions or development of new curriculum materials is evaluated
  - Schedules for the development of curriculum materials reflect new equipment deliveries and fleet training requirements

1.2 Development of Curriculum

- The developer will usually be the Training Facility (**TF**) designated as Course Curriculum Model Manager (**CCMM**) for the course to be developed or revised.
  - For multi-sited courses, the **CCMM** has a responsibility to liaison with each teaching site to determine site-unique requirements and to solicit review of materials.
  - Coincident with the development of Lesson Plan, Trainee Guide, and Test Package, is the procurement of Resource Requirements List items which are identified as part of the **TCCD**.
  - The **CCMM** is the interim review and approval agent for the development of training materials, up to the pilot convening of the course.

- The **CCMM** is ultimately responsible to the **CCA** for the development of all curriculum materials.
  - NAVEDTRA 135A discusses the **CCMM's** roles and responsibilities in greater detail and should be reviewed before revising or developing instructional materials.
- The developer is responsible for incorporating into the curriculum all requirements residing in current instructions, such as incorporating safety details and developing a Testing Plan.
  - NAVEDTRA 135A should be consulted to ensure all requirements are addressed.
- The developer will work with numerous entities both inside and outside the Navy to ensure that training materials are developed or acquired which meet accepted instructional standards and meet the development schedule.
  - Assistance in meeting these requirements and professional guidance in the development of effective training materials may be obtained from the Curriculum and Instructional Standards Office (**CISO**), where available. The role and responsibility of the **CISO** is discussed in NAVEDTRA 135A .
- Surveillance of approved, on-line courses is the subject of Chapter 7 of this volume.

1.3 Coordination with Training Facility (TF)

- Curriculum development for courses which are multi-sited and/or developed by agents other than the **TF** should involve all **TFs** at a minimum in the review of the curriculum materials.

- The degree of **TF** involvement will be influenced by the approved **TPP** milestones and **CCA** directions.

- The developer should forward for review and comment major segments of the course as soon as they are available rather than leaving the review until the total course is developed.

- The **TF** should review the material for technical accuracy and any problems they might have in implementing the material as written. Review of material should be expedited and comments should be specific and include suggestions for correcting any errors or problems identified.

- **TFs** may be called upon to pilot the material developed, provide instructors to participate at other sites in piloting the material, and/or provide pilot monitors. (See Chapter 6 of this volume for more information on pilots.)

- If multiple Functional Commanders are involved, resource requirements and other factors which impact on the implementation of the final course should be coordinated with each Functional Commander as soon as requirements are identified.

SECTION 2.0 CURRICULUM MATERIALS DEVELOPMENT

Development and approval of the curriculum materials will follow the events listed unless specifically waived by the **CCA**.

- Review management materials
  - Training Project Plan. As soon as a firm requirement exists, a Training Project Plan (**TPP**) will be submitted in accordance with CNETINST 1550.10. Development of the course described in the **TPP** can proceed while awaiting **TPP** approval if authorized by the **CCA**.
  - Course Training Task List. The **CTTL** forms the foundation for the objectives and the core for the Lesson Topics.
  - Training Course Control Document. The approved **TCCD** will provide the Terminal Objectives and Enabling Objectives, course sequence by Unit and Lesson Topic, proposed test points, and resource requirements.
- Establish a development schedule which meets the Milestones approved in the **TPP**
  - The sequence in which the material is developed must be dictated by each course's individual requirements, including such factors as lead time for **VI/IMM** or training device development; availability of technical documentation; appropriateness of existing materials, and the number and experience of developers assigned to the effort.

The preferred sequence of training materials development is:

Lesson Plan

Trainee Guide

Test Package

Support Material/Instructional Media Materials

- The schedule is an internal control document which should be monitored by the developer and the **CISO**.

- Monitoring the schedule will lead to early identification of possible changes in the **TPP** Milestones. Changes in the **TPP** Milestones must be coordinated and approved by the **CCA**.

- Review content and/or format requirements levied by the **CCA/CCMM** in addition to those specified in this manual.

  - If the developer is not experienced in application of the NAVEDTRA 130A process, the **CCA** may require the developer to submit a sample of each type of curriculum material to be developed. This is referred to as a "Cross Section."

  - The Cross Section and its contents will be specified by the **CCA**, if required.

- Complete development of draft curriculum and support materials

  - The Lesson Plan places the instructional process in the sequence established by the **TCCD**. In the Lesson Plan, the enabling objectives become discussion points, amplified as necessary to support the terminal objectives, which in turn comprise Lesson Topics.

  - Methods and procedures for Lesson Plan development are contained in Volume I Chapter 6 of this manual.

- Multiple Lesson Topics will normally be under development at one time. It is recommended that a single individual or team be given responsibility for developing a group of related Lesson Topics or Units.

- All Lesson Topic development should be a coordinated effort to ensure a smooth transition from Lesson Topic to Lesson Topic and Unit to Unit.

- The Trainee Guide is designed to support instruction. Most essential are Job Sheets to carry out skill objectives in both practice and test situations.

  - Directions for developing effective instruction sheets are found in Volume I Chapter 7 of this manual.

- Tests measure the trainee's attainment of stated knowledge and skill objectives. Thus, tests are closely related to both the Lesson Plan and the supporting Trainee Guide Instruction Sheets.

  - Procedures for developing knowledge and skill tests are contained in Volume I, Chapter 8 of this manual and additional guidance on the administration of a testing program is provided in NAVEDTRA.

- Support material including **VI** aids and **IMM** may actually be developed by personnel not part of the developer's command. This situation may increase the amount of coordination or require longer lead time.

  - Volume I, Chapter 9 discusses the coordination required to develop **VI** aids and **IMM**.

- Other support material, such as training devices, are governed by their own instructions and will be coordinated with the **CCA.**

- Procurement of technical manuals, textbooks, and government publications is governed by Supply System directives.

- All material should be reviewed by at least one Subject Matter Expert or other designated reviewer beside the developer.

- Reproduce copies of all curriculum materials (including paper copies of **VI** aids and **IMM** materials as practical) and forward to designated **TFs** for review and comment, as directed.

  - Review will be completed within the guidelines listed below, plus 14 days mailing time, unless otherwise directed by the **CCA**. (See Figure 5-1.)

  - Reviews of pipeline courses will be completed on each segment, with comment time periods based upon segment course length.

EXPECTED COURSE LENGTH	REVIEW TIME
Less than 3 weeks	30 days
3 weeks to 8 weeks	60 days
Greater than 8 weeks	90 days

FIGURE 5-1: GUIDELINES FOR REVIEW OF CURRICULUM MATERIALS

- Modify curriculum materials to reflect the changes identified during review

- Recommend pilot date to **CCA**
  - Advise the **CCA** of readiness to pilot 90 days in advance. (See Chapter 6 of this Volume for additional guidance on pilot responsibilities.)
- CCA should not authorize a pilot until sufficient **VI** aids and **IMM** are on hand to evaluate their integration into the course.
- **CCMM/TF** will monitor the pilot course as assigned by the **CCA**.
- Forward pilot course progress reports in accordance with Chapter 6 of this volume.
  - The **CISO** (or Quality Control Officer) at the pilot site should monitor the pilot.
  - Red-line curriculum to incorporate proposed changes in the curriculum/support materials.
- CCA signifies approval of the curriculum or red-lined curriculum identified during the pilot by issuing a Letter of Promulgation.
  - Authorize **TFs** (as appropriate) to use approved red-lined pilot curriculum prior to final curriculum.
  - Actual implementation of the course or use of the red-lined curriculum if resources are affected must be coordinated with the **TF's** Functional Commander.
- Incorporate curriculum material comments in accordance with approved recommendations of the Pilot Course Report.
- Duplicate and distribute masters of the curriculum materials to assigned **TFs** along with sufficient **VI** aids and **IMM** to implement the course at each site.

- Duplicate and distribute curriculum materials to **TFs** with receipt card (OPNAV 5511/10). Track receipt cards.

- CCMM and **TF** perform surveillance on the final curriculum materials as described in Chapter 7 of this volume.

SECTION 3.0 CURRICULUM AND SUPPORT MATERIAL REVIEW AND APPROVAL

Curriculum and Support materials may be reviewed by the **CCA**

- Usually the **CCA** review will occur at the end of the development process, but the **CCA** can require additional In-process Reviews (**IPR**) in which **CCA**, **CCMM**, **CISO**, **TFs**, or others as designated by the **CCA** participate.

- **IPRs** should be required for new course development and for revision of lengthy courses and pipeline courses.

- Review authorities will ensure that developed curriculum materials comply with the management materials, are technically accurate, and meet the guidelines of NAVEDTRA 130A and other requirements specified for the course.

SECTION 4.0 SUMMARY

Each document produced during the curriculum development process should build and support all others. It is rare that only one part of the curriculum materials is being worked on at a time. It is therefore important that all personnel actively engaged in developing the training materials communicate and exchange material. Not only is the developer able to see how material supporting or building on his topic is being developed, but it serves as a review for content and accuracy.

DEVELOP PHASE

CHAPTER 6

PILOT AND IMPLEMENTATION APPROVAL

INTRODUCTION

A pilot course is defined as the first full length course conducted at a Navy school by Navy instructors using the curriculum and supporting training materials prepared specifically for that course. The purpose is to validate the curriculum and materials, and to determine their effectiveness and course length. The **CCA** will determine those course(s) designated as pilot convenings.

- The pilot course process consists of the following elements:
  - Preparation for pilot course convening
  - Pre-pilot conference
  - Pilot course convening and course monitoring
  - Post-pilot conference
  - Report of pilot course assessment

SECTION 1.0 PREPARATION FOR PILOT COURSE CONVENING

The structure and conduct of a pilot course will depend to a great extent on the length of the course, class convening schedule, and the extent of approved curriculum materials and support materials available.

- A short course with infrequent class convenings will permit the conduct of a pilot and assessment of results, and incorporation of review comments prior to the next convening

- A complex, lengthy course, or the necessity to accommodate class schedules, may dictate the use of a "rolling pilot," where data is gathered and fed back to the developer for incorporation, while the pilot continues for later sections or convenings

  - Segments of the piloted materials must integrate into the rest of the course. That is, previous training must support the materials being piloted.

  - Temporary duty considerations preclude lengthy participation by support personnel outside the host **TF**. Use senior, qualified **TF** personnel as available, preferably personnel NOT directly involved in writing the piloted course materials.

  - Have options available to utilize previously approved course materials if piloted segment produces abnormally high test failure rates by students in the pilot class.

  - If the piloted segment of a course is acceptable, it should be left in place after pilot. However, final approval of course materials by the **CCA** should be reserved until **all** revised materials have been piloted and reported upon. Suggestions regarding the use of this training material include:

    If corrections are relatively minor, continue to instruct from the red-line materials while corrections are being incorporated into a smooth copy.

If corrections result in re-writing or resequencing materials within Lesson Topics, return to the use of previously approved materials until corrections are completed. If time and resources permit, pilot the revised materials a second time.

1.1 Preparation for Pilot of New Courses

The following procedures apply to preparation for pilot of new courses:

- Determination of Pilot Course Convening Date. The **CCMM** will submit a proposed pilot course convening date to the **CCA** with copies sent to all other participating training facilities (**TF**) as soon as a projected completion date for training materials development is available

- Readiness to Conduct Pilot Course. Not later than 90 days prior to the designated pilot course convening date, the **TF** scheduled to conduct the pilot is requested to assess and certify its readiness to conduct the pilot course. This readiness notification should be addressed to anddeveloped in conjunction with the **CCA**. Copies should be transmitted to any other participating **TF** or other activities, and include the following elements:

  - A listing of present training material shortages and deficiencies which are projected to be corrected prior to the pilot course convening date.

  - The state of completion, installation, and operability of training devices and laboratories which support the pilot course should also be considered.

  - A listing of training material shortages and deficiencies, if any, which are not expected to be corrected by the convening date, or for which delivery/correction dates cannot be determined. Include cognizant activity and estimated delivery/correction dates if known.

  - A listing and assessment of any other factors which, in the judgement of the commanding officer, could adversely affect the validity of the pilot course as a comprehensive evaluation of all

instructional elements. Instructor preparation time and the availability of students with the required prerequisites are among factors to be considered.

- An overall assessment of readiness to conduct the pilot course as scheduled. (Include status and completeness of the curriculum and supporting training materials, technical training equipment, **GPETE**, training devices, laboratories, COSBAL supply support onboard, etc.)

- If the scheduled date is not recommended, an alternate date should be proposed.

- Pilot Course Convening Approval. The **CCA** will evaluate the recommendations in the readiness report, approve a pilot course convening date, designate monitoring team members, and specify a due date for submittal of the Final (End of Course) Monitoring Progress Report.

  - This date will normally be 15 days after the estimated course completion date for courses less than 30 days in length, and 30 days after the estimated course completion date for courses 30 days or more in length.

  - The convening date approval letter distribution will include all addressees of the readiness report.

- Pre-Pilot Surveillance. After convening date approval and not later than 14 days prior to the approved pilot course convening date, the **TF** scheduled to conduct the pilot is requested to submit a message report if the pilot course should NOT be conducted on the approved date .

  - This is an exception report which can be made after pilot convening date approval if the facts and assumptions contained in the original readiness report have significantly changed. Its purpose is to stimulate timely recovery action if possible, and to notify pilot course support activities before attendance plans are finalized.

- Significant changes occurring in the two weeks immediately preceding the pilot course convening date should be reported to the **CCA** by telephone.

1.2 Pilot of Revised Courses Developed from Existing Curricula

For curriculum developed solely from previously piloted, approved, and promulgated curricula, the following procedures will be used to expedite curriculum development while retaining an option to pilot when the conditions warrant:

- The first convening of the course will be conducted using draft curriculum materials. The **TF's CISO** will provide monitoring support for this class.

- Within 30 days after course completion, the **TF** will provide a synopsis of **CISO** and student critique comments with a recommendation to either continue development to final products, or conduct a formal pilot.

- The **CCA** will select one of four options for the curriculum materials:

  - Approve as a final curriculum

  - Approve curriculum for pilot, subject to incorporation of designated comments

  - Continue to use for training, no pilot required

  - Require a formal pilot

- If a formal pilot is required, the **TF** comments will be considered a draft curriculum review, and the normal pilot process will be followed.

SECTION 2.0 PRE-PILOT CONFERENCE

- Shortly before the pilot course convening date, the monitoring team chairman will convene the pre-pilot conference. Its purpose is to plan the validation process, assign monitoring team responsibilities consistent with the levels of representation available, and discuss/resolve any outstanding issues impacting the conduct of the pilot. The following should be addressed:
  - Assignment of monitors and respective responsibilities
  - Status of management materials
  - Status of curriculum materials
  - Status of support materials
  - Status of applicable change recommendations
  - Identification of instructors
  - Status of pilot instructor's Lesson Plan personalization
  - Review of the Readiness to Pilot report or letter
  - Specification of Monitoring Report frequency and due dates
  - A tentative date for the post-pilot conference
- All problems and discrepancies should be identified and resolved so that a final determination can be made as to the suitability of conducting the pilot course.
  - The chairman will distribute a summary of the agreements reached and responsibilities assigned during the pre-pilot conference.

2.1 Responsibilities and Functions of the Pilot Monitoring Team

- The pilot monitoring process is an evaluation of all training materials, both knowledge and performance, and it faithfully records in real-time all instructional presentations.
  - It is **NOT** the responsibility of the monitoring team to develop or revise curriculum material during the classroom/laboratory presentation.
  - If the monitoring team determines that the **LOs** are not satisfied, recommendations will be made to the **CCA** at the post-pilot conference and in the final report.
  - It is the responsibility of the **CCA** or **TSA** to determine what action is necessary to accommodate the recommendations.
- The **CCMM** or **TF** conducting the pilot course will generally provide most of the monitoring team members from the instructional staff.
  - It is evident that the greatest range of tasks are the responsibility of the course personnel at the host training facility conducting the pilot course, with support from within by the training facility's **CISO.**
  - To the maximum feasible extent, other **TFs** that will teach the course, or the developer if the material was not developed by the host **TF**, should provide assistance to the host command in the course monitoring effort.
- The pilot course monitor(s) should be:
  - Technically competent to provide the instructor technical assistance as required or capable of accessing a point of contact for technical assistance.
  - Familiar with the development guidelines of NAVEDTRA 130A and the management requirements established in NAVEDTRA 135A.

- Aware of the status and availability of all training materials associated with the particular curriculum.

- Familiar with approved and pending change recommendations to any training materials which could have an impact on the pilot course.

- Familiar with the objectives of the preliminary curriculum and approved training.

- The purpose of conducting a pilot course is to validate the curriculum and support materials, and to determine their effectiveness in attaining the course objectives.

  - The role of the chairman is to coordinate and manage the project, and summarize the results in the final course monitoring report.

  - The pilot course monitors serve as the primary judge of the adequacy of a new or revised course. In this role, notes and comments regarding observed problems are later amplified to provide the basis for recommending changes, completing Intermediate and Final Course Monitoring Reports, and, ultimately, in assessing the success or failure of the piloted course.

  - The course monitor is provided with all curriculum materials and references while observing instruction. Addendum 6-A, the Course Monitor Outline, can be used to note problem areas. A summary of all Course Monitor Outlines completed can thus provide a reference for daily and end of course critiques.

  - Addendum 6-B, the Course Monitor Time Log, is used to record the actual time spent on each lesson topic, and, in summary, provides the best estimate of total time required for the course.

- The Chairman shall:
  - Maintain physical custody of the master red-lined curriculum and support materials, ensuring all consensus/ comments/ recommendations of the course monitors are properly and accurately annotated.
  - Chair and conduct critique sessions daily with the course monitors and incorporate comments into the master red-lined curriculum materials. Make the master red-line materials available to course monitors.
  - Inform course monitors of the time and location for critiques
  - Conduct pre-presentation reviews of curriculum materials
  - Provide course monitors with presentation material that has been restructured by instructors in advance of presentation.
  - Conduct and chair the scheduled post-pilot conference
  - Originate all Intermediate Pilot Course Monitoring Reports and the Final Pilot Course Monitoring Report.
- Course Monitors shall:
  - Attend pre-pilot conference
  - Attend post-pilot conference
  - Be present for **ALL** classroom and laboratory sessions
  - Comment as appropriate on the administrative aspects of the pilot course conduct, using the Training Facility Administrative Review as a guideline (Addendum 6-C).

- Comment as appropriate on curriculum, using the Course Monitor Outline as necessary
- Maintain personal red-line of curriculum materials for use during critiques
- Attend **ALL** critique sessions held to review presentations and resolve comments for incorporation into the master red-line
- Attend **ALL** pre-presentation reviews of curriculum materials requested by the chairman
- Accept and use for monitoring the modified curriculum materials supplied by the chairman
- Participate in the development of Pilot Course Monitoring Reports

2.2 The Course Monitoring Outline Sheets, Addendum 6-A, are designed for use by course monitors and to serve as guides for noting subjects or items observed during the course monitoring process that require comment. Typically, one sheet would be completed by each course monitor for each lesson topic, but this is flexible and should be amenable to the structure of the course.

SECTION 3.0 PILOT COURSE CONVENING AND COURSE MONITORING

- The course will be conducted and managed in accordance with the Lesson Plan and the management guidelines established in NAVEDTRA 135A.

  - It is strongly recommended that the instructors not be the individuals who developed the material. The material should stand on its own. Often, when the writer is also the presenter, he will teach what he intended to have in the lesson topic and not necessarily the material which was actually written.

  - Often the **CCA** or the **CCMM** will establish as a policy that any student recommended for dis-enrollment from a pilot course will be reassigned to another course teaching the old curriculum. This procedure eliminates the perception that the trainee is being penalized by problems which may be inherent in the material being piloted. NAVEDTRA 135A provides additional information on student management. It and **CCA**/**CCMM** policies should be reviewed.

- Pilot monitors shall:

  - Attend critique sessions held at the completion of each instructional day to review presentations and resolve comments for incorporation into the master red-line.

  - Unless otherwise directed by the chairman, assemble in assigned classroom 15 minutes prior to the start of scheduled instruction. Course monitors will return to the classroom or laboratory in sufficient time to ensure they are in place when class breaks are over.

  - Not participate in classroom/laboratory activities or aid the instructors in any way, nor will they discuss their comments or recommendations with the instructors during classroom/laboratory presentations. In no case shall course monitors conduct business with trainees presenr.

SECTION 4.0 POST-PILOT CONFERENCE

- At the completion of the pilot, the pilot monitors, **CCA**, and representatives of the activity which developed the material will meet to discuss their observations and comments on all instructional material, the course management procedures, and the facilities

Course Monitoring Outline Sheets are usually prepared for each Lesson Topic, but the frequency of preparation is based on whatever is appropriate to have meaningful data to discuss at the end-of-day critique and for input to the master red-line Lesson Plan, Trainee Guide, support material, and tests.

- The Course Monitoring Outline Sheets, Time Log, and the Facilities Administrative Review Checklist will be reviewed to ensure all issues are addressed. Appropriate corrective action will be recommended.

SECTION 5.0 REPORT OF PILOT COURSE ASSESSMENT

- The chairman, unless otherwise designated, will prepare the Monitoring Report. The report will be divided into the following sections:
  - Course Identification
  - Course Administration
  - Course Validation
  - Instructional Accuracy/Adequacy
  - Minority Report (If none, so state)
  - Other (Optional)
- Long courses may require interim pilot course monitoring reports. The final course monitoring report should contain all interim reports, as applicable.
- If the course is to be multi-sited, any problem at these sites which will impair the implementation of the course will be discussed under the appropriate heading in the report. The site should be clearly identified to distinguish it from the pilot site.

5.1 Course Identification

The course identification section will contain the following data on the pilot course:

- Title of the command conducting the pilot
- Course Title without abbreviations
- Course **CIN** if assigned

- Inclusive dates of the pilot

- Name, rate, and rank of all monitors/representatives and the commands or activities they represent

5.2 Course Administration

The course administration section will contain the following data on the pilot course:

- Facilities. Major deficiencies impairing training and recommended for corrections. If corrective action requires additional resources it should be noted. The **TF** should prepare separate documentation to their Functional Commander for resources in accordance with NAVEDTRA 135A.

- Safety. Personnel and equipment deficiencies impairing training and recommended corrective action. Any safety problems which occur during the pilot will be reported in accordance with NAVEDTRA 135A and CNETINST 1500.20 as well as noted in the monitoring report.

- Security. Any deficiency impairing training, such as inadequate stowage for classified materials, or affecting the trainees assigned to the course, such as delays in obtaining necessary clearances.

- Allocation. Course and/or topic time, student-to-instructor ratios, and effectiveness of classroom-to-laboratory time allocations with recommendations when times deviate more than 10 percent.

- Critique Sheets. Summarize comments from the outline sheets.

5.3 Curriculum Validation

The curriculum validation section will contain the following information on the pilot course:

- Lesson Plan. Statements as to attainment of objectives, recommendations, instructor/trainee preparation, major deficiencies, etc.
- Trainee Guide. Statements as to the adequacy and organization of all instruction sheets.
- Equipment/Tools. Comments on the quantity/quality of equipment and tools, their adequacy in support of objectives, and trainee's ability to use.
- Support Materials. Comments on the type, quality, quantity, and adequacy to support objectives.
- Instruction. Comments on the quality of instruction in the attainment or lack of attainment of objectives.
- Testing. Comments on the testing strategy, test design, test items, and quantity to support uninterrupted training.

5.4 Instructional Accuracy/Adequacy

This section will address the accuracy, adequacy, sequencing, and overall effectiveness of the training in attaining the stated learning objectives.

5.5 Minority Report

This section provides an opportunity for monitors to provide any alternatives to the recommendations presented in the previous sections. If no minority comments are put forth, it should be noted.

5.6 Other

If any other items should be brought to the **CCA's** attention but do not fit under any of the other sections, they would be addressed here.

SECTION 6.0 PILOT COURSE CORRECTIONS AND ADJUSTMENTS

- Based on the findings and comments recorded during the pilot course, it is usually necessary to make corrections and adjustments to the training materials prior to approval and implementation.

- Detailed direction is provided to the developer on what corrections and adjustments are to be made.

- Limitations

  - Any modification to training materials which **does not** affect the course mission statement or require additional resources may be corrected as a result of the pilot. The following are examples of such corrections:

    Revise objectives as necessary to support the course mission

    Add, delete, or resequence lesson topics

    Adjust lesson topic periods and ratios

    Add or delete support material such as transparencies, wall charts, and instruction sheets

  - Any modification to training materials which **does** affect the course mission statement or require additional resources may not be corrected without modification and approval of the **TPP**. The following are examples of such corrections:

    Work outside the course mission statement (expand or reduce scope)

    Change in minimum/maximum class size, established course length, **AOB**

Require additional resources:

Equipment
Facilities
Personnel
Funding

SECTION 7.0 IMPLEMENTATION

Implementation takes place after the pilot course has been conducted and the corrections and adjustments to the training materials indicated by the pilot course have been accomplished.

- **CCA** Approval
  - Authorization to use curriculum materials is granted by the **CCA** through a Letter of Promulgation. This approves the curriculum for use in support of training.
- Functional Commander Approval
  - Where the **CCA** and the Functional Commander are different, the Functional Commander authorizes implementation of the course when the material has been approved by the **CCA** and all required resources are in place.
- **CCMM** Responsibilities
  - Ensure all sites are ready to train
  - Accommodate site-unique training considerations
  - Distribute one print of all curriculum material masters to all **TFs**
  - Distribute support materials consistent with the **TPP** or as directed by the **CCA**/Functional Commander
  - Submit initial **NITRAS** and **CANTRAC** data for new or revised courses
- **CCMM** and **TF(s)**
  - Certify instructors to teach the course and supervise personalization of Lesson Plans

- Establish administrative and support functions with:

  CISO
  Student Control
  Medical (if appropriate)
  PSA/**PSD** (if appropriate)

- Print and distribute training materials

- Update **NITRAS** and **CANTRAC** if necessary

- Order consumables and other support materials. This should be coordinated with **CCA** and Functional Commander to avoid duplication of effort or funding conflicts

- Follow special procedures established for certification of instruction of high risk courses

SECTION 8.0 SUMMARY

After implementation, responsibility for curriculum maintenance is assigned to the **CCMM** and course surveillance begins. All future modifications to course materials fall under the guidance of Volume III, Chapter 7 of this manual. Course management is carried out by all sites in accordance with NAVEDTRA 135A.

ADDENDUM 6-A

COURSE MONITORING OUTLINE SHEET

COURSE MONITORING OUTLINE SHEET

MONITOR NAME_____REPRESENTING_____

DATE_____ UNIT/LESSON TOPIC NUMBER_____

LESSON TOPIC_____

CLASSROOM/LAB ROOM NUMBER OR LOCATION_____

1. Were LESSON PLAN components accurate and in correct format?

   a. Front Matter

   b. Learning Objectives

   c. Discussion Points

   d. Related Instructor Activity

   e. Instructor/Trainee Preparation

   f. Other

2. Were TRAINEE GUIDE components accurate and in correct format?

   a. Front Matter

   b. Outline Sheet

   c. Information Sheets

   d. Assignment Sheets

   e. Job Sheets

   f. Diagram Sheets

   g. Problem Sheets

3. EQUIPMENT/TOOLS

   a. Was equipment correct and available in sufficient quantity?

b. Were tools correct and available in sufficient quantity?

4. SUPPORT MATERIALS/INSTRUCTIONAL MEDIA MATERIAL

a. Was support material relevant to the lesson topic?

b. Is the special emphasis provided by support material necessary?

c. Are IMM clear and legible?

5. INSTRUCTIONAL ACCURACY/ADEQUACY

a. Is the content accurate?

b. Is the material presented in a logical sequence?

c. Does the lead-in information motivate the student to pursue the material?

d. Do the teaching-learning activities encourage productive learning?

e. Is the material written in a manner to allow maximum student participation?

f. Is there opportunity for review and practice?

g. Does the material effectively teach the behaviors specified in the Learning Objectives?

h. General Information accuracy:

(1) Are abbreviations, terms, and symbols accurate?

(2) Are operational characteristics, capabilities, and limitations accurate?

(3) Is documentation accurate?

i. Physical Information accuracy:

(1) Is information on major and associated components accurate?

(2) Is information on displays, controls, and indicators accurate?

j. Functional Information accuracy:

(1) Is information on functional operation accurate?

(2) Is information on controls and indicators accurate?

(3) Is information on computer software, operational, and maintenance programs accurate?

k. Interface Information accuracy:

(1) Is information on physical interface accurate?

(2) Is information on functional interface accurate?

l. Operational Information

(1) Is information on initialization accurate?

(2) Is information on normal operational tasks accurate?

(3) Is information on casualty/degraded modes accurate?

(4) Is information on securing/shutdown accurate?

(5) Is information on personnel and equipment safety accurate?

m. Maintenance Information

(1) Is information on preventive maintenance procedures accurate?

(2) Is information on operational tests and diagnostic programs accurate?

(3) Is information on malfunction indications accurate?

(4) Is information on fault isolation procedures accurate?

(5) Is information on alignment, calibration, and adjustment accurate?

(6) Is information on disassembly, repair, and reassembly accurate?

(7) Is information on tools and test equipment accurate?

(8) Is information on post-repair procedures accurate?

(9) Is information on personnel and equipment safety accurate?

(10) Is information on maintenance policy accurate?

6. INSTRUCTION

a. Did the instructor(s) demonstrate adequate preparation?

b. Did the instructor(s) demonstrate appropriate instructional methods and techniques?

c. Depth of coverage

(1) Was the depth of coverage appropriate in relation to the objectives?

(2) Was the depth of coverage appropriate in relation to the experience level of the trainees?

d. Did the instructor(s) demonstrate appropriate questioning techniques?

e. Was the instructor(s) presentation pertinent to DPs?

7. TESTING

a. Are tests given which cover too much or too little material?

b. Do tests adequately measure trainee comprehension of learning objectives?

c. Are performance tests indicative of actions performed on the job?

d. Are sufficient test items and alternative forms of tests available?

e. Are all trainees tested under the same conditions?

f. Are performance tests similar to, but not the same as, job assignments?

g. Is test security maintained?

h. Test data:

(1) Number taking test_____

(2) Number passing test_____

(3) High score_____

(4) Low score_____

(5) Median score_____

(6) Minimum passing score_____

(7) What remedial options (if any) were utilized?

ADDENDUM 6-B

COURSE MONITORING TIME LOG

COURSE MONITORING TIME LOG

COURSE TITLE_____ CIN_____

CLASSROOM/ LAB NUMBER OR LOCATION _____

MONITOR NAME_____ REPRESENTING_____

DATE	PART/ SECT/ TOPIC	CLASSROOM		LABORATORY		NOTES
		Hr. Sched.	Actual	Hr. Sched.	Actual	

COMMENT REQUIRED IF ACTUAL TIME VARIES BY +/-10% FROM SCHEDULED TIME.

ADDENDUM 6-C

TRAINING FACILITY ADMINISTRATIVE REVIEW CHECKLIST

TRAINING FACILITY ADMINISTRATIVE REVIEW CHECKLIST

MONITOR NAME_____REPRESENTING_____

DATE_____ UNIT/LESSON TOPIC NUMBER_____

LESSON TOPIC_____

CLASSROOM/LAB ROOM NUMBER OR LOCATION_____

1. FACILITIES	Yes/No	Comments
a. Is the learning process aided by environmental conditions with respect to:		
(1) Temperature?		
(2) Lighting?		
(3) Space?		
(4) Absence of distractions?		

b. Are the laboratory facilities:

(1) Properly arranged?

(2) Supportive of skill objective accomplishment?

2. PERSONNEL AND EQUIPMENT SAFETY Yes/No Comments

a. Are safety precautions:

(1) Adequately identified?

(2) Prominently displayed?

(3) Stressed in instructional presentations?

(4) Enforced when performing tasks?

b. Are existing hazards adequately identified?

c. Is standard safety equipment available for use?

3. SECURITY

a. Are trainees advised of proper security measures?

b. Is the dissemination of classified material or information on a strict "need to know" basis?

c. Is the use of classified material confined to classroom or laboratory?

d. Is classified material accurately and prominently marked? Yes/No Comments

e. Is access to classroom or laboratory controlled during classified presentations or discussions?

4. ALLOCATIONS

   a. Are trainee-to-instructor ratios considered optimum within:

      (1) Classroom?

      (2) Laboratory?

   b. Is classroom-to-laboratory time allocation effective?

5. CRITIQUE SHEETS

   a. Are critique sheets used?

   b. Do responses on critique sheets indicate the trainees have achieved knowledge and skill requirements?

IMPLEMENT AND EVALUATE PHASES

CHAPTER 7

SURVEILLANCE AND TRAINING MATERIALS MODIFICATION

SECTION 1.0 IMPLEMENTATION

The training materials will be implemented by the **CCMM** with the cooperation of the **TFs** teaching the course. NAVEDTRA 135A should be used as a guide for the management of the course. It specifies the audit trail to be maintained for each curriculum development/revision and what records are to be maintained on all courses.

SECTION 2.0 EVALUATION

- The central concept behind evaluation is the constant improvement of training materials through a process that:
  - Provides a means of keeping training materials current and accurate
  - Is responsive to changing training requirements and equipment/documentation alterations
  - Is open to innovation
- Evaluation consists of a number of programs which either individually or collectively evaluate the instructional materials, the instruction, the instructors, and the trainees. NAVEDTRA 135A describes the various programs used to evaluate the effectiveness and efficiency of the total training program. The portion of the evaluation program which concentrates on the curriculum is organized around two major functions, surveillance and training materials modification.

SECTION 3.0 SURVEILLANCE

Every **TF** is responsible for monitoring each course it teaches and proposing changes to the **CCMM** as needed. NAVEDTRA 135A describes in greater detail the responsibilities of **TFs** and **CCMMs**.

- Surveillance involves:
  - Monitoring hardware documentation and changes for impact on existing training materials
  - Detecting errors or deficiencies in existing training materials and initiating the necessary corrective action
- Training materials modification is the result of surveillance and involves actual alterations to training materials. These alterations range from Interim Changes, such as the correction of clerical errors and insertion of titles, to revisions in course length, the course mission statement, or a shift from one instructional strategy to another.

SECTION 4.0 SUPPORT COORDINATION AND CONTROL

- For courses supported by a **TSA**, both the **CCMM** and **TSA** will be responsible for the surveillance of, and the development of, modification to assigned training materials.

- For courses life-cycle supported by a **TSA**, the **TSA** shall introduce Technical Changes to curriculum necessitated by changes in tactical equipment, documentation, maintenance policy, or training-unique equipment.

- For all courses not life-cycle supported by a **TSA**, the **CCMM** will perform surveillance and introduce other modifications to curricula.

SECTION 5.0 CATEGORIES OF MODIFICATIONS TO TRAINING MATERIAL

5.1 Interim Change

A minor modification to training materials correcting editorial, typographical or technical errors, teachability, safety or urgent Type Commander promulgated subjects. An Interim Change does NOT require a **TPP**.

- An Interim Change will NOT alter the course mission statement, terminal/enabling objectives, change the length of the course, or require additional resources.
- The Commanding Officer of each **TF** teaching a course may approve Interim Changes made by the **TF** for the curriculum it teaches.
- Interim Changes related to safety will be implemented and reported to the **CCMM** immediately.
- Interim Changes not related to safety will be reported to the **CCMM** within five working days.
- The **CCMM** will incorporate Interim Changes in the next promulgated change to the curricula.
- If the Interim Change was generated due to site-unique circumstances, the **CCMM** will evaluate the Interim Change and upon concurrence will issue an approval letter. **CCMM** approval shall specify that the change is unique to the submitting site and will not be included in future changes promulgated by the **CCMM**.
- If the **CCMM** does not concur with an Interim Change as submitted, the issue will be forwarded to the **CCA** for resolution.

- Copies of the Interim Change will be forwarded to the **CCA**, and **TSA** as appropriate. Figure 7-1 is a sample letter for forwarding an Interim Change

From: Commanding Officer, Training Facility
To: Commanding Officer, Course Curriculum Model Manager

Subj: INTERIM CHANGE TO COURSE A-234-5678, COMMERCIAL UTILITY CARGO VEHICLE (TYPE A) OPERATION AND MAINTENANCE

Ref: (a) NAVEDTRA 130A

1. Discrepancies and/or errors have been encountered in the Lesson Plan, and the following pen and ink Interim Changes have been made:

In Volume 1, on page 4-4-5, change the part of item 3. a. which reads:

(5) Steering/Wheels/Tires
(6) Brakes

to read:

(5) Steering Wheels/Tires/Tubes/Rims
(6) Brakes/Shoes

2. This Interim Change is in accordance with reference (a) and has been implemented at this command. Request dissemination to other TFs teaching this course.

(TF Commanding Officer)

Distribution:
Other TFs

FIGURE 7-1: INTERIM CHANGE LETTER

5.2 Change

A modification to training materials that does NOT affect the course mission, does NOT increase course length, and does NOT require additional resources. A Training Project Plan is NOT required.

- The need for a change may be identified by either the training activity or the CCMM. Changes will be approved and promulgated by the **CCMM**.
- Each Change will incorporate all outstanding interim changes.
- If a conflict exists between a **CCMM** and another **TF** over a Change, the matter will be referred to the **CCA** for resolution.
- For **TSA**-monitored courses, the **TSA** will monitor Changes to ensure technical adequacy and accuracy.
- Formatting, production, and distribution of **CCMM**- originated Changes shall be accomplished by the **CCMM**.
- Copies of all Changes will be distributed to each **TF** teaching the course, the **CCA**, and **TSA** (for **TSA**- supported courses).
- Changes will be issued by letter as shown in Figure 7-2.

From: Commanding Officer, Course Curriculum Model Manager
To: Commanding Officer, Training Facility

Subj: CHANGE 2 TO COURSE A-234-5678, COMMERCIAL UTILITY CARGO VEHICLE (TYPE A) OPERATION AND MAINTENANCE

Ref: (a) NAVEDTRA 130A

Encl: (1) Lesson Plan Change Pages
(2) Trainee Guide Change Pages

1. Incorporate enclosure (1) into the Lesson Plan for subject course. Incorporate enclosure (2) into the subject course Trainee Guide. This Change is in accordance with reference (a) and incorporates Interim Changes 2-1 through 2-16 and is approved for use. Subsequent Interim Changes will be reflected in Change 3.

(CCMM Commanding Officer)

Distribution:
NCTC TF

FIGURE 7-2: CHANGE APPROVAL LETTER

5.3 Technical Change

A Technical Change addresses any change to tactical or training-unique equipment or documentation originating in the **TSA's** parent material agency and affecting promulgated curricula. A Technical Change does NOT require a **TPP**.

- A Technical Change may or may not affect learning objectives. It does NOT affect course mission, course length, or resources.
- The **TSA** develops and forwards a Technical Change to the **CCMM**.
- The Technical Change will consist of smooth change pages to the curricula, with sufficient copies to distribute to all activities teaching the affected course.

5.4 Revision

A modification to the course mission statement, an increase in course length, or training material modification that requires additional resources. A Revision ALWAYS requires a **TPP**.

- A Revision incorporates previous modifications and supersedes preceding editions of the training materials.
- Revisions require the development and submission of a Training Project Plan for approval. The level of approval for a TPP for revisions will vary based on the project. Refer to *CNETINST 1550.10* for information on the approval of TPPs. Volume I, Chapter 2 of this manual provides guidance for developing a Training Project Plan.
- If the revision requires additional resources, a CPATS will be submitted after the TPP has been approved.

- Revisions will be prepared by a developer and approved by the **CCA**.

- The amount of change to the curriculum will vary between revisions. Revisions may consist of partial replacements of curriculum and thus, may not require a reprint of the entire curriculum; or the revision may be so extensive that the complete curriculum must be reprinted.

- Revisions to be developed by a **TSA** to **TSA**- monitored courses shall be undertaken only with **TSA** concurrence and acceptance of funding responsibility for development and review of the Revision.

- A developer (**TF** or **TSA**) shall be assigned for an approved Revision effort for in-house projects. This is usually the **CCMM**. The development process described in Volume I, appropriately modified by **CCA** and **TSA** concurrence, shall be applied to Revisions.

- The intent of training materials modifications is to allow expedient updating of curricula while still maintaining consistent instructional standards throughout the NAVEDTRACOM. Modifications to courses will not be undertaken solely to change format.

- Figure 7-3 describes the originator, promulgation authority, reproduction and distribution activity, and reviewing authority for Interim Changes, Changes, Technical Changes, and Revisions to curricula:

Type of Modification	**INTERIM CHANGE**	**CHANGE**	**TECHNICAL CHANGE**	**REVISION**
Originator	TF	CCMM	TSA	Per TPP
Pre-Promulgation Review	None	None	None	Per TPP
Promulgation Authority	CCMM	CCMM	CCMM	CCA
Reproduction/ Distribution	CCMM/ TF	CCMM/ TF	Repro: TSA Dist: CCMM	Per TPP

FIGURE 7-3: MODIFICATION APPROVAL/REVIEW MATRIX

NAVEDTRA 130A - VOLUME 3
KEYWORD LIST

ADDENDUM 7-B

COURSE MONITORING TIME LOG

COURSE MONITORING TIME LOG

COURSE TITLE_____ CIN_____

CLASSROOM/ LAB NUMBER OR LOCATION _____

MONITOR NAME_____ REPRESENTING_____

DATE	PART/ SECT/ TOPIC	CLASSROOM		LABORATORY		NOTES
		Hr. Sched.	Actual	Hr. Sched.	Actual	

COMMENT REQUIRED IF ACTUAL TIME VARIES BY +/-10% FROM SCHEDULED TIME.

ADDENDUM 7-C

TRAINING FACILITY ADMINISTRATIVE REVIEW CHECKLIST

TRAINING FACILITY ADMINISTRATIVE REVIEW CHECKLIST

MONITOR NAME_____REPRESENTING_____

DATE_____ UNIT/LESSON TOPIC NUMBER_____

LESSON TOPIC_____

CLASSROOM/LAB ROOM NUMBER OR LOCATION_____

1. FACILITIES	Yes/No	Comments
a. Is the learning process aided by environmental conditions with respect to:		
(1) Temperature?		
(2) Lighting?		
(3) Space?		
(4) Absence of distractions?		

b. Are the laboratory facilities:

(1) Properly arranged?

(2) Supportive of skill objective accomplishment?

2. PERSONNEL AND EQUIPMENT SAFETY Yes/No Comments

a. Are safety precautions:

(1) Adequately identified?

(2) Prominently displayed?

(3) Stressed in instructional presentations?

(4) Enforced when performing tasks?

b. Are existing hazards adequately identified?

c. Is standard safety equipment available for use?

3. SECURITY

a. Are trainees advised of proper security measures?

b. Is the dissemination of classified material or information on a strict "need to know" basis?

c. Is the use of classified material confined to classroom or laboratory?

d. Is classified material accurately and prominently marked? Yes/No Comments

e. Is access to classroom or laboratory controlled during classified presentations or discussions?

4. ALLOCATIONS

   a. Are trainee-to-instructor ratios considered optimum within:

      (1) Classroom?

      (2) Laboratory?

   b. Is classroom-to-laboratory time allocation effective?

5. CRITIQUE SHEETS

   a. Are critique sheets used?

   b. Do responses on critique sheets indicate the trainees have achieved knowledge and skill requirements?