

**BY ORDER OF THE COMMANDER
AIR EDUCATION AND TRAINING
COMMAND**

AETC INSTRUCTION 36-2641

26 JUNE 2014



Personnel

**TECHNICAL AND BASIC MILITARY
TRAINING DEVELOPMENT**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms available on the e-Publishing website at www.e-Publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ AETC/A3PV

Certified by: HQ AETC/A3P
(Ms. Bonnie Molina)

Pages: 139

Supersedes: AETCI 36-2203, 12 August
2009

This instruction implements AFPD 36-26, *Total Force Development*. It contains responsibilities and procedures for planning, developing, and validating technical resident and nonresident courses and basic military training (BMT). It applies to personnel in Air Education and Training Command (AETC), Air National Guard (ANG), and Air Force Reserve Command (AFRC), who plan, prepare, review, approve, and conduct technical and basic military training. This instruction does not apply to flying training, the 367 Training Support Squadron (TRSS) or the Inter-American Air Forces Academy (IAAFA). Chapter 13 and Chapter 14 do not apply to BMT. The 937th Training Group (TRG) enlisted medical courses taught on the Medical Education and Training Campus (METC) at Joint Base San Antonio (JBSA) Fort Sam Houston will comply with Chapters 1, 2, 3, 4, 5, 12, 14, and 16 of this policy. The 937 TRG will comply with Chapter 13 when developing career development courses (CDC) for enlisted medical Air Force Specialties taught on the METC. The 937 TRG Air Force-only Medical Officer and Medical Readiness courses will comply with this instruction in its entirety.

This instruction requires collecting and maintaining information protected by the Privacy Act of 1974, authorized by Title 10, United States Code, Section 8013, System of Records notice F036 AF PC Q, *Personnel Data System*, applies. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force

Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS).

This AETCI may be supplemented by commanders responsible for implementing this instruction. Supplements will be used to establish organization-specific guidance. (T-2) Do not use local operating instructions to implement guidance in this instruction. (T-2) Commanders will send proposed supplements through their training group or wing and 2 AF (2 AF units only) to HQ AETC/A3P for review and coordination prior to publishing. (T-2)

Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Route AF Forms 847 from the field unit through the training group, training wing and 2 AF (2 AF units only) to HQ AETC/A3P.

The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Unless otherwise specified, requests for waiver must be submitted by the group or wing commander through 2 AF (2 AF units only) to HQ AETC/A3P. (See paragraph 1.2 for specific procedures.) T-2

See Attachment 1 for a glossary of references and supporting information used in this publication.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. This revision is realigned under the new AFPD 36-26, *Total Force Development*; incorporates changes in Guidance Memorandum 3; restructures and realigns guidance in each chapter to provide clear and concise guidance; clarifies purpose of training plans and when to develop course training plan (CTP) or abbreviated training plan (ATP); revises timelines for development, coordination, approval, and certification of training plans; incorporates specific training plan guidance for standardized faculty development courses; clarifies the standard training day and guidance for modifications to standard training day; revises multiple instructor requirement (MIR) guidance, waiver documentation and reporting; aligns guidance on risk management (RM) with applicable Air Force directives; added new examples of lesson plan RM tags; clarifies guidance for distributing training materials to non-AETC requestors; adds training deficiency alerts and revises guidance on training deficiency reports; clarifies requirement for conducting low flow review to advanced and supplemental courses only; clarifies timeline to submit low flow review report; changes annual review of technical training to periodic course review; changes interval for periodic course review, clarifies when the review is needed, specifies areas to analyze, and specifies timeline to submit report; rescinds AETC Form 23, *STS Proficiency Code Key (Final)*, AETC Form 60, *CTS Proficiency Code Key*, AETC Form 150, *Field Evaluation and Examination Answer Sheet*, and AETC Form 1200, *OMR Classroom Answer Sheet*; updates references, acronyms, terms, and attachments. Format has been changed to comply with AFI 33-360, *Publications and Forms Management*.

Chapter 1—OVERVIEW AND RESPONSIBILITIES 8

- 1.1. Overview. 8
- 1.2. Waiver Authority. 8
- 1.3. Responsibilities: 8

Chapter 2—GENERAL INFORMATION 16

- 2.1. Training Data Systems. 16
- 2.2. Education and Training Course Announcements (ETCA). 16
- 2.3. Training Requirements. 17
- 2.4. Course Implementation and Modification. 18
- 2.5. Formal Technical Training Course Types. 20
- 2.6. Common Training Courses. 21
- 2.7. Instructional System Development: 21

Chapter 3—COURSE RESOURCE ESTIMATE (CRE) 23

- 3.1. CRE Purpose. 23
- 3.2. When To Develop a CRE. 23
- 3.3. What To Include in the CRE. 23
- 3.4. Coordinating CREs: 24
- 3.5. Funding CREs: 25
- 3.6. Resourcing enlisted medical courses developed and taught on METC: 26

Chapter 4—TRAINING PLANS 27

- 4.1. Purpose. 27
- 4.2. Courses Requiring Training Plans: 27
- 4.3. When to Develop a CTP or Abbreviated Training Plan (ATP): 28
- 4.4. Training Plan Format and Content: 28
- 4.5. Training Plan Development, Coordination, Approval and Certification: 39
- 4.6. Training Plan Process for Standardized Faculty Development Courses: 41
- 4.7. Move Course to Student Management and Activate New or Revised Course: 41
- 4.8. Move Course to Student Management Within 30 Calendar Days of Class Start Date: 42
- 4.9. Transferring Courses between TRW/TRG. 43
- 4.10. Course Cancellation/Discontinuation. 43

Chapter 5—TRAINING STANDARDS 44

- 5.1. Training Standards. 44

5.2.	Specialty Training Standards (STS).	44
5.3.	Course Training Standard:	48
Chapter 6—TRAINING OBJECTIVES		51
6.1.	Description.	51
6.2.	Objective hierarchy.	51
6.3.	For additional guidance on objectives	52
6.4.	Developing Objectives	52
Chapter 7—STUDENT MEASUREMENT		54
7.1.	General.	54
7.2.	Minimum Passing Requirements:	55
7.3.	Progress Checks:	55
7.4.	Written Tests:	56
7.5.	Performance Tests:	57
7.6.	Group Measurement:	58
7.7.	Written Measurement Feedback:	58
7.8.	Written Test Analysis:	59
7.9.	Measurement Plan:	59
7.10.	Measurement Safeguards/Security	60
Chapter 8—COURSE CHARTS		61
8.1.	General.	61
8.2.	Training Day	61
8.3.	Training Shifts	62
Table 8.1.	Shift Time Identification Codes.	62
8.4.	Standard Training Parameters	62
8.5.	Developing Course Charts:	63
8.6.	Wartime Courses.	65
Chapter 9—PLANS OF INSTRUCTION (POI) AND LESSON PLANS (LP)		66
9.1.	POI Purpose.	66
9.2.	POI Development:	66
9.3.	Distribution.	71
9.4.	Classified POIs.	71
9.5.	Lesson Plan (LP) Part II, Teaching Guide:	71

Table 9.1. Examples of Lesson Plan RM Tags.	73
Chapter 10—STUDENT INSTRUCTIONAL MATERIALS	75
10.1. Purpose.	75
10.2. Description.	75
10.3. Technical Data Use.	75
10.4. Cost Effectiveness:	75
10.5. Currency:	75
10.6. Preparing Student Instructional Materials:	76
10.7. Writing Standards:	77
10.8. Review.	77
10.9. Distribution Outside of AETC:	78
10.10. Type 6 Distance Learning (DL).	79
10.11. Type 6 DL Instructional Materials:	79
Chapter 11—VALIDATION	80
11.1. Purpose:	80
11.2. Procedures:	80
11.3. Planning:	80
11.4. Data Collection and Analysis:	81
11.5. Reports.	81
11.6. Measurement Validation.	82
Chapter 12—TRAINING DEFICIENCIES	83
12.1. Description.	83
12.2. Training Deficiency Alert.	83
12.3. Training Deficiency Report.	83
Chapter 13—NONRESIDENT TRAINING MATERIALS	84
13.1. Purpose.	84
13.2. Writer Resources.	84
13.3. Career Development Courses (CDC):	85
13.4. CDC Development Process:	85
13.5. General Preparation:	87
13.6. Manuscript Preparation:	88
13.7. Prepublication Quality Control:	88

13.8. Approving Official Certification.	89
13.9. Manuscript Submission to AFCDA (Except Classified CDCs).	89
13.10. Priority Processing:	89
13.11. Manuscript Processing:	90
13.12. SKT Development Support.	90
13.13. CDC Course Reviews.	90
13.14. CDC Feedback:	91
13.15. CDC Deactivation.	92
13.16. Specialized Courses (SC):	92
Chapter 14—LOW FLOW COURSE REVIEW	93
14.1. Purpose.	93
14.2. Procedures:	93
Chapter 15—SERVICE TESTING	95
15.1. Purpose.	95
15.2. Procedures:	95
Chapter 16—PERIODIC COURSE REVIEW	96
16.1. Purpose.	96
16.2. Procedures:	96
16.3. Documentation.	97
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	98
Attachment 2—SAMPLE COURSE RESOURCE ESTIMATE	111
Attachment 3—MANPOWER RESOURCE DECISION LOGIC NARRATIVE	113
Attachment 4—EQUIPMENT RESOURCES AVAILABILITY DECISION LOGIC NARRATIVE	115
Attachment 5—AETC FORM 120 COMPLETION INSTRUCTIONS	117
Attachment 6—FOREIGN DISCLOSURE REVIEW PROCESS	120
Attachment 7—TABLE A7.1. SAMPLE PROFICIENCY CODE CTS	122
Attachment 8—TABLE A8.1. SAMPLE BEHAVIORAL CTS	126
Attachment 9—AETC FORM 449 COURSE CHART	129
Attachment 10—TRAINING DEFICIENCY ALERT FORMAT	132
Attachment 11—ACTUAL TRAINING DEFICIENCY REPORT FORMAT	133

Attachment 12—EXAMPLE CDC PRODUCTION PLAN

134

Attachment 13—AETC FORM 469 CAREER DEVELOPMENT COURSE CHART

135

Chapter 1

OVERVIEW AND RESPONSIBILITIES

1.1. Overview. This publication establishes guidance and procedures for planning, developing, validating, and reviewing resident and nonresident technical and basic military training. The training development processes described in this instruction are part of the Instructional Systems Development (ISD) process to analyze, design, develop, and implement training. Refer to AFI 36-2651, *Air Force Training Program*, AFMAN 36-2234, *Instructional Systems Development*, AFMAN 36-2236, *Guidebook for Air Force Instructors*, and AFH 36-2235, Volume 9, *Information for Designers of Instructional Systems: Application to Technical Training*, for additional guidance.

1.2. Waiver Authority. Policy and procedures are enacted to provide quality and consistency in training and evaluation. Occasionally, unique circumstances may warrant special consideration and possible waiver of policy provisions. At the same time, because it is important to preserve fidelity of training, evaluation, and policy implementation throughout the command, a process must be established for review of proposed waivers.

1.2.1. Unless otherwise stated in this instruction, AETC/A2/3/10 is the waiver authority for waivers that change the intent of the policy outlined in this instruction. (T-2) For waivers to unit supplements, the unit generating the supplement will identify the waiver authority to that supplemental guidance.

1.2.2. Requests for waiver will be submitted by the group or wing commander through 2 AF to HQ AETC/A3P. (T-2) Waiver requests must:

1.2.2.1. Identify the specific policy reference and text to be waived.

1.2.2.2. Rationale for the waiver: Explain which of the 3 reasons listed under AFI 33-360, paragraph 1.9.1 apply and describe why.

1.2.2.3. Time period or circumstance for which the waiver will be required.

1.2.2.4. Risk mitigation measures the requesting commander will implement during the waiver period.

1.2.2.5. Impact if waiver is disapproved.

1.2.3. Units will upload approved waivers into Management Internal Control Toolset (MICT) for inspection activity review. Because waivers are the expression of a specific commander accepting risk, Tier 1, 2, and 3 waivers expire 30 days after a change of command unless the new commander renews the waiver. For non-tiered waivers, a waiver remains in effect until canceled in writing by the approving official, the publication is revised, or the waiver expires.

1.3. Responsibilities:

1.3.1. Air Force Career Field Manager (AFCFM):

1.3.1.1. Establishes Specialty Training Standard (STS) requirements and format, and ensures STS meets Career Field Education and Training Plan (CFETP) format when incorporated into CFETP Part II.

1.3.1.2. The AFCFM approves or disapproves recommended changes to the CFETP and determines if page changes or revisions are necessary.

1.3.2. HQ AETC/A1MRT:

1.3.2.1. Validates the training plan manpower.

1.3.2.2. Coordinates with HQ AETC/A3T Training Pipeline Manager (TPM) to resolve conflicts in training plan documentation supporting manpower requirements.

1.3.2.3. Notifies the HQ AETC/A3T TPM when training plan manpower has been validated and informs them of the effect on manpower and/or student man years (SMY).

1.3.3. HQ AETC/A8X. Establishes command Instructional Systems Development (ISD) policy and procedures.

1.3.4. HQ AETC/A3P. Assigns and maintains, according to Training Planning System (TPS), all formal technical training course identifiers and personnel data system (PDS) codes.

1.3.5. HQ AETC/A3RB-TT:

1.3.5.1. Generates the course resource estimate (CRE) Part II.

1.3.5.2. Reviews training plans (for other than medical courses) for resource impact and makes a concur/non-concur recommendation to HQ AETC/A3T TPM.

1.3.6. HQ AETC/A3T:

1.3.6.1. Certifies training plans.

1.3.6.2. Reviews command recommendation on low flow courses and forwards recommendation on disposition of courses to AFCFM.

1.3.6.3. Evaluates AFCFM non-concurrence on low flow course recommendation and resolves any issues with AFCFM.

1.3.7. HQ AETC/A3T TPM:

1.3.7.1. Provides overall management responsibilities for technical training pipelines.

1.3.7.2. Coordinates changes to training requirements and resourcing issues with Air Force and HQ AETC staff agencies.

1.3.7.3. Assists training groups and 2 AF in resolving conflicts on training requirements between customer requests and the training group capability.

1.3.7.4. Is the production liaison to Air Staff, AFPC, major commands (MAJCOMs), Air Force Career Development Academy (AFCDA), HQ AETC A3/AAD, and other agencies for CDCs and SCs.

1.3.7.5. Reviews low flow course review report from training group, incorporates applicable TDY-to-school costs using HQ AETC/A3R data, and prepares command recommendation memorandum for HQ AETC/A3T signature.

1.3.7.6. Approves service test plans and any permanent changes to course validated by a service test (except medical courses developed and taught by METC).

1.3.8. HQ AETC/IAD:

1.3.8.1. Reviews disclosure memorandums and provides concurrence on disclosure restrictions to wing foreign disclosure office (FDO).

1.3.8.2. Coordinates on updated disclosure memorandums.

1.3.9. HQ AETC/SGU:

1.3.9.1. Resources medical training courses.

1.3.9.2. Assist HQ AETC/A3T TPM in resolving training requirements and resourcing issues for medical training courses.

1.3.10. Air Force Security Assistance Training Squadron (AFSAT):

1.3.10.1. Notifies HQ AETC/A3T TPM of foreign training requirements in courses where a Military Articles and Services List (MASL) number has been assigned.

1.3.10.2. Reviews disclosure memorandum and provides concurrence on disclosure restrictions to wing foreign disclosure office (FDO) in absence of HQ AETC/IAD FDO.

1.3.10.3. Coordinates on updated disclosure memorandums.

1.3.11. **2 AF/CC.** Reviews and coordinates on motivational training annexes.

1.3.12. **2 AF/TTOC.** Releases class schedules.

1.3.13. **2 AF/TTOC Detachment 1.** Reviews training plans for planned implementation date and impact to enlisted accession plan.

1.3.14. **2 AF Faculty Development Functional Manager:**

1.3.14.1. Reviews and approves course training standard (CTS) for standardized faculty development courses.

1.3.14.2. Resolves conflicts between groups, customers, and faculty development units prior to CTS approval and publication.

1.3.14.3. Reviews and approves measurement plans, course charts, and Plans of Instruction (POIs) for standardized faculty development courses.

1.3.14.4. Reviews and approves training plans for standardized faculty development courses.

1.3.15. **Training Wing (or Training Group if no parent wing).** Oversees assessment of compliance with ISD guidelines.

1.3.16. **Training Group Commander or designated representative:**

1.3.16.1. Approves training plans.

1.3.16.2. Approves modifications to the standard training day on a course-by-course basis.

1.3.17. **Training Group or designated level:**

1.3.17.1. Uses ISD to develop and revise training.

1.3.17.2. Determines the most cost-effective method to satisfy training requirements.

- 1.3.17.3. Works with HQ AETC/A3T TPM to identify possible alternative training methods to satisfy unfunded training requirements.
- 1.3.17.4. Develops a process to document important ISD application decisions, constraints and assumptions, to enable managers and future developers to reconstruct significant course design decision points.
- 1.3.17.5. Uses the Technical Training Management System (TTMS) Interactive Courseware Implementation System (ICIS) management plan to guide the course development process and meet customer need dates.
- 1.3.17.6. Prepares training plans and annexes.
- 1.3.17.7. Maintains training plan and certification memorandum record sets in TTMS ICIS. Maintain electronic or paper-based record sets for classified training plans in accordance with applicable security directives.
- 1.3.17.8. Ensures training plan documents and annexes are reviewed and coordinated in a timely manner to meet prescribed timelines.
- 1.3.17.9. Ensures course transfer procedures are followed.
- 1.3.17.10. Ensures foreign disclosure review process is accomplished and foreign disclosure memorandum is included in CTP security annex or course record set, as applicable, if foreign military/international students are to be trained.
- 1.3.17.11. Hosts STRTs and U&TWs held at AETC installations in support of AFCFMs.
- 1.3.17.12. Coordinates with the AFCDA for CDC need dates and document dates in the U&TW minutes.
- 1.3.17.13. Plans for and prepares strawman training standards (STS or CTS) to support a specialty training requirements team (STRT)/utilization and training workshop (U&TW).
- 1.3.17.14. Develops draft training standards (STS or CTS) to support training requirements established during a STRT/U&TW and approved by the AFCFM.
- 1.3.17.15. Develops STS in accordance with AFI 36-2201, *Air Force Training Program*.
- 1.3.17.16. Uses Sample Qualitative Requirements or Behavioral Statement STS Coding System in AFI 36-2201 (Figures A4.3. and A4.4., respectively) to identify training task and knowledge proficiency when drafting training standards (STS or CTS).
- 1.3.17.17. Ensures training standard (STS or CTS) task items are written to maximize standard interpretation by the users.
- 1.3.17.18. Ensures draft CFETP includes the appropriate training group evaluation Customer Service Information Line (CSIL) DSN number for reporting training concerns.
- 1.3.17.19. Coordinates draft CFETP and training standards (STS or CTS) with customers.
- 1.3.17.20. Reviews and analyzes results of draft CFETP and training standards coordination.
- 1.3.17.21. Resolves all CFETP/training standard (STS or CTS) coordination issues.

- 1.3.17.22. Prepares final CFETP/training standard (STS or CTS).
- 1.3.17.23. Submits the CFETP/STS through HQ AETC/A3T TPM to the AFCFM to publish and distribute.
- 1.3.17.24. Resolves conflicts between the group and customers prior to CTS approval and publication.
- 1.3.17.25. Provides rationale through the HQ AETC/A3T TPM to AFCFM when MAJCOM input will not be included in the final STS or CTS.
- 1.3.17.26. Informs HQ AETC/A3T TPM and 2 AF/TTOC of training issues that require HQ USAF resolution.
- 1.3.17.27. Informs the HQ AETC/A3T TPM and 2 AF/TTOC (2 AF units only) if resources are not available to support new or changed training requirements.
- 1.3.17.28. Develops and submits course resource estimate (CRE) when tasked, to begin resourcing new or changed training requirements.
- 1.3.17.29. Evaluates alternative training methods to satisfy unfunded requirements.
- 1.3.17.30. Recommends CFETP and training standard (STS or CTS) additions, changes, and deletions, and provides rationale for actions taken based on internal or external evaluation and feedback.
- 1.3.17.31. Coordinates CFETP and training standard (STS or CTS) change recommendations through the HQ AETC/A3T TPM to AFCFM for approval.
- 1.3.17.32. Maintains the training standard (STS and CTS) record sets in the TTMS ICIS. Maintain electronic or paper-based record sets for classified training standards in accordance with applicable security directives.
- 1.3.17.33. Distributes all classified CFETPs according to local special security office (SSO) procedures.
- 1.3.17.34. Establishes guidance for course training objective development.
- 1.3.17.35. Establishes local measurement procedures and requirements for measurement device approval, security, validation of measurement devices, and periodic test analysis.
- 1.3.17.36. Develops procedures to store, inventory, and control test materials (print or electronic formats).
- 1.3.17.37. Ensures printed test materials are free of marks that could convey test answers.
- 1.3.17.38. Sends tests to other bases using certified mail, approved encrypted electronic transfer procedures or password-protected electronic files.
- 1.3.17.39. Handles classified measurement materials according to established security procedures.
- 1.3.17.40. Ensures student measurement is implemented and in compliance with this instruction.

- 1.3.17.41. Ensures measurement devices include a foreign disclosure disclaimer if foreign military/international students are to be trained.
- 1.3.17.42. Maintains measurement plan in TTMS ICIS.
- 1.3.17.43. Provides guidance, expertise, and oversight for developing course charts.
- 1.3.17.44. Prepares, approves, and distributes course charts.
- 1.3.17.45. Coordinates course charts for standardized faculty development courses (if designated by 2 AF as the OPR) with other groups before approval.
- 1.3.17.46. Maintains course chart record sets in TTMS ICIS.
- 1.3.17.47. Maintains classified course charts in accordance with applicable security directives.
- 1.3.17.48. Ensures foreign disclosure disclaimer is included on the course chart.
- 1.3.17.49. Provides POI development guidance, expertise, and oversight.
- 1.3.17.50. Determines where RM tags are placed in the POI and/or Lesson Plan, Part II when teaching steps are not part of the instructional design of the course and for T.O.-based courses.
- 1.3.17.51. Approves new/revised POIs and POI changes prior to use.
- 1.3.17.52. Ensures field trips and outside the classroom visits support specific objectives as necessary training activities.
- 1.3.17.53. Ensures foreign disclosure disclaimer is included in POI instructional guidance.
- 1.3.17.54. Prints and distributes POIs.
- 1.3.17.55. Maintains POI record set in TTMS ICIS.
- 1.3.17.56. Maintains classified POIs in accordance with applicable security directives.
- 1.3.17.57. Emails unclassified course charts and POIs for courses awarding or desired to award Community College of the Air Force (CCAF) credit to CCAF Course Manager (CCAF/DEA) ccaf.cd@us.af.mil for CCAF credit evaluation at least 30 days prior to course start.
- 1.3.17.58. Sends classified course charts and POIs together, via registered mail or secure email in accordance with applicable security directives, to AU/SSO, Attention: CCAF, 100 South Turner Blvd, Maxwell AFB Gunter Annex AL 36114 for CCAF credit evaluation.
- 1.3.17.59. Provides lesson plan (LP) development guidance, expertise, and oversight.
- 1.3.17.60. Ensures LP content is consistent with Air Force core values, policy, and guidance. Training programs containing content on radicalism, cultural awareness, and counterterrorism must exhibit cultural sensitivity and respect for religion.
- 1.3.17.61. Ensures guest lecturers are briefed and guest lecturer materials are reviewed prior to presentation to ensure consistency with Air Force core values, policy, and guidance.

- 1.3.17.62. Specifies LP coordination and approval procedures.
- 1.3.17.63. Establishes LP currency control procedures.
- 1.3.17.64. Maintains LP record sets in TTMS ICIS.
- 1.3.17.65. Maintains classified LPs in accordance with applicable security directives.
- 1.3.17.66. Provides guidance, expertise and oversight on development and use of student instructional materials.
- 1.3.17.67. Establishes coordination and approval procedures for student instructional materials.
- 1.3.17.68. Establishes procedures to review student instructional materials and update, as necessary.
- 1.3.17.69. Ensures student instructional material content is consistent with Air Force core values, policy, and guidance; training programs containing content on radicalism, cultural awareness, and counterterrorism must exhibit cultural sensitivity and respect for religion.
- 1.3.17.70. Ensures foreign disclosure disclaimer is included on student instructional material.
- 1.3.17.71. Maintains student instructional material record sets in TTMS ICIS.
- 1.3.17.72. Maintains all copyright releases on file in the course record set.
- 1.3.17.73. Establishes a group distance learning (DL) point of contact (POC) to work DL issues, according to AETCI 36-2208, *Technical and Basic Military Training Interactive Multimedia Instruction (IMI) and Distance Learning (DL)*.
- 1.3.17.74. Establishes procedures for analyzing, developing, delivering, and using DL instructional materials, according to AETCI 36-2208.
- 1.3.17.75. Maintains record sets of locally developed DL materials (paper-based or electronic).
- 1.3.17.76. Establishes procedures to validate courses and measurement devices, and ensures problems are identified, corrected, and documented.
- 1.3.17.77. Establishes procedures to report training deficiencies, and to correct deficiencies when they occur.
- 1.3.17.78. Programs and schedules CDC and SC preparation and revision.
- 1.3.17.79. Prepares and approves CDC and SC production plans and course charts.
- 1.3.17.80. Prepares, reviews, and forwards CDC and SC manuscripts to AFCDA.
- 1.3.17.81. Responds to AFCDA recommended corrective actions to ensure manuscripts are instructionally adequate.
- 1.3.17.82. Manages CDC and SC writer preparation and maintenance resources.
- 1.3.17.83. Conducts CDC and SC course reviews.

- 1.3.17.84. Appoints an alternate POC when a CDC or SC writer is not assigned or is on an extended TDY or leave, scheduled to PCS, or retiring.
- 1.3.17.85. Establishes an annual low flow course review program.
- 1.3.17.86. Submits low flow course review reports to HQ AETC/A3T TPM.
- 1.3.17.87. Develops procedures for submitting service test plans and conducting service tests.
- 1.3.17.88. Designates responsibilities for conducting periodic course reviews.
- 1.3.17.89. Ensures periodic course reviews are accomplished.
- 1.3.17.90. Initiates appropriate action, including reviewing and purging the systems (TTMS, TPS, and/or ETCA) of tentative course shells no longer required (not activated, discontinued, or cancelled).
- 1.3.17.91. Completes actions initiated during periodic course reviews with the AFCFM, HQ AETC/A3T, and 2 AF/TTOC as required by this and other applicable AETC instructions.
- 1.3.17.92. Establishes guidance for record sets.

Chapter 2

GENERAL INFORMATION

2.1. Training Data Systems. AETC utilizes two separate computer-based data systems to support training planning, development, and implementation, the Technical Training Management System (TTMS) and the Training Planning System (TPS).

2.1.1. TTMS is an integrated data system providing AETC users a suite of integrated and customized software products in a centralized, enterprise-wide, web-based architecture. TTMS includes the following applications:

2.1.1.1. TTMS Student Management. This application provides the primary system of record used by instructors, training managers, and others to manage student accounting.

2.1.1.2. TTMS Interactive Courseware Implementation System (ICIS). This application is used for course design and development within technical and basic military training. ICIS interfaces with Student Management to establish new courses and update existing courses in Student Management.

2.1.1.3. TTMS Evaluations. This application provides automated testing capabilities and end-of-course surveys. The automated testing function interfaces with Student Management, allowing test scores to automatically flow to individual student records.

2.1.2. TPS is used to establish new courses, course parameters, and build course schedules to support Air Force training requirements. Course parameters and scheduled training requirements are used to justify instructor and other training resource requirements.

2.1.3. Use TTMS and TPS for all unclassified training related functions, including course development and delivery, instructor and student management, resource management, and course evaluation. If computer-based measurement is used, units must use the TTMS Automated Testing function.

2.1.3.1. When developing courses that include classified information, enter all unclassified course information necessary to complete adequate student accounting in TTMS ICIS.

2.1.3.2. TTMS and TPS automated products may be administratively edited for such formatting issues as column width, line spacing, white space, and font size. Changes that affect course parameters are not permitted.

2.1.3.3. Locally developed automated information systems will not duplicate functionality found in TTMS and TPS.

2.2. Education and Training Course Announcements (ETCA).

2.2.1. ETCA contains courses conducted or administered by the Air Force, Department of Defense, other military services, government agencies, and security assistance programs. Responsibilities, procedures, and school specific information are also included. Each course announcement contains a description of the course and course content, course specific policies and procedures, and reporting instructions. Functional POCs and training managers

(TM) use ETCA Maintenance to maintain general and course specific information displayed in ETCA.

2.2.2. ETCA Maintenance. TMs will maintain current, correct, up-to-date course POC and course information in ETCA.

2.2.2.1. TMs will use ETCA Maintenance, the ETCA software user manual, and procedures on the ETCA website to initiate, maintain, and remove course announcements. TMs will also review ETCA general procedures and school specific information for impact to their course announcements.

2.2.2.2. TMs will review course announcements annually in accordance with AFI 36-2201 and update as required. TMs will check the “update” button, whether or not announcement changes are required, so that the “last changed” date will update. **Note:** HQ AETC/A3PZ requires the “last changed” date as a quality review measure.

2.2.2.3. Ensure HQ AETC/FMAM has coordinated on changes having a potential financial impact, such as added or deleted courses, course length and/or location changes, adding excess baggage, or changes in travel directions.

2.3. Training Requirements.

2.3.1. AETC provides formal training in initial skills, advanced, supplemental, distance learning, and field training courses to active duty Air Force personnel, ANG, AFRC, other U.S. military service active duty and reserve personnel, DoD civilians, other U.S. government agencies, and foreign military students.

2.3.2. Content of AETC formal training courses ranges from basic military knowledge, to knowledge of principles in a scientific or technical area, and complex operational and maintenance tasks in multiple Air Force specialties. Specialty training includes initial, advanced, lateral, supplemental, special, and field training.

2.3.3. All non-prior service (NPS) enlisted personnel attend BMT prior to entering specialty training.

2.3.4. AETC receives quantitative training requirements for initial skills, advanced, supplemental, distance learning, and field training courses from HQ USAF through multiple programmed guidance letters (PGL). The various PGLs are issued for each fiscal year.

2.3.4.1. HQ USAF identifies the active duty initial skills trained personnel requirement (TPR) for each enlisted and officer specialty necessary to maintain operational manning requirements. The TPR is comprised of active duty Air Force non-prior service (NPS), prior service (PS), and retrainees.

2.3.4.2. ANG, AFRC, other services, and other government agencies provide their training requirements to HQ USAF.

2.3.4.3. Foreign military training requirements are provided by the respective country to SAF/IA.

2.3.4.4. Together, the TPR and the training requirements from other customers make up total training requirements for AETC skills courses.

2.3.5. TMs schedule training requirements in TPS. Requirements scheduled in TPS are used to justify instructor and other training support resources.

2.3.6. Foreign Military Training Requests:

2.3.6.1. Training requests for foreign military/international students will require foreign disclosure review of requested training course or courses. Air Force Security Assistance Training (AFSAT) will notify AETC/A3T Workflow of new foreign military training requirements and requests for training courses where a Military Articles and Services List (MASL) number has not been assigned.

2.3.6.2. The HQ AETC/A3T TPM will contact appropriate TM for the requested course or courses.

2.3.6.3. TM will coordinate foreign disclosure review in accordance with paragraph 4.4.3.6.2.

2.3.6.4. Training wing/group personnel will notify the AETC/A3T TPM of any requests for training received directly from a foreign source or AFSAT. The HQ AETC/A3T TPM will validate training request with AFSAT.

2.3.6.5. Training group or wing ensures foreign disclosure review is accomplished if requirement to train foreign military/international students exists.

2.4. Course Implementation and Modification.

2.4.1. The need to train personnel on new weapon systems, equipment, or in a new specialty drives the development and implementation of a new course. Existing courses are modified based on classification changes, occupational analysis reports (OAR), field evaluation questionnaire summaries (FEQS), and faculty and staff analyses.

2.4.2. The decision to implement a new course or modify an existing one comes from a STRT/U&TW, training planning team (TPT) or other directive conference or working group, or service test or other types of feedback.

2.4.3. BMT requirements are identified through MAJCOMs to the BMT Triennial Review Committee for approval. The BMT triennial review committee reviews Air Force BMT graduate performance, military training, military studies, initial enlisted entry training, curriculum course training standards, and other special interest item requirements. Recommendations for a new or revised CTS are based on internal or external training evaluation and feedback. Out of cycle requirements go through HQ AETC/A3T to HQ USAF/A1DL for approval.

2.4.4. STRT/U&TWs are conducted to identify the education and training needs, develop and review training programs, resolve training or personnel utilization issues, and develop the CFETP for an Air Force Specialty. The CFETP identifies officer and enlisted specialty and civilian occupation life-cycle education and training requirements by skill level and/or duty position. See AFI 36-2201, Chapter 5, for STRT/U&TW procedures and guidance on CFETPs. STRT/U&TW checklist use is mandatory.

2.4.4.1. The cryptologic and TEMPEST fields incorporate STRT/U&TW functions in cryptologic training advisory groups and job educational training standards.

2.4.4.2. Primary purpose of the STRT is for the AFCFM and MAJCOM functional managers to determine and present training requirements to AETC. Attendees include AFCFM, AETC/TPM, AETC/TM, MAJCOM Functional Managers (MFMs), SMEs, AETC Occupational Analysis Division. The AFCFM chairs the STRT. The AETC TPM and TM attend as advisors.

2.4.4.3. The U&TW is an executive decision meeting. Attendees include AFCFM, AETC/TPM, AETC/TM, AETC/Program Element Manager (PEM), and MFMs. The AFCFM and AETC/TPM co-chair the U&TW. Optional U&TW attendees include the AETC CDC writer and representatives from AFCDA, AETC Occupational Analysis Division, AFPC education, training, and classification, and the AETC instructional technology unit (ITU).

2.4.4.4. U&TW attendees resolve resource issues to include: providing funding, instructor authorizations, equipment, and facilities to support new or revised training; determine which organizations will furnish resources and establish commitment and delivery dates; adjust training requirements if resource shortfalls cannot be resolved; establish training delivery dates; and finalize STS/CTS/CFETP. These decisions, taskings and associated suspense dates are captured in the U&TW minutes. Minutes may include appropriate taskings to the TRG to begin the course development process.

2.4.5. TPTs and other conferences or working groups are convened to identify training requirements for courses not covered by a CFETP. Such conferences or working groups normally result in major changes to one or more courses that support an Air Force Specialty (AFS). Decisions, taskings, and associated suspense dates are captured in the meeting minutes. Minutes may include appropriate taskings to the TRG to begin the course development process.

2.4.6. Customer feedback (without a STRT and/or U&TW) may drive existing course modification, as long as STS/CTS requirements are met. TMs will submit recommended changes to add or delete line items or to change knowledge or proficiency codes to the HQ AETC/A3T TPM.

2.4.6.1. The HQ AETC/A3T TPM will coordinate with and secure approval from the AFCFM. CTS/STS line items will not be changed without full coordination or STRT/U&TW action.

2.4.6.2. Coordinate interservice course changes according to AFI 36-2230(I), *Interservice Training*.

2.4.6.3. HQ AETC/A3T TPM maintains AFCFM coordination and proposed course change approval documentation.

2.4.7. Once new or modified training standards are levied, or direction to develop or modify a course is established, the TM manages training development and implementation, and identifies resources needed to bring training online. The TM develops the course resource estimate (CRE) and/or course training plan (CTP), which includes start-up costs, base operating support (BOS), manpower, student man-years (SMY), class schedules, equipment, maintenance support, facilities, environmental impacts, course materials, and delivery media.

2.4.7.1. Use the TTMS ICIS for all new courses and revisions. If courses include classified information, enter only unclassified course information in accordance with applicable security directives.

2.4.7.2. The course data in TTMS ICIS and TTMS Student Management must mirror each other, except for minor typographical or grammatical corrections, and minor plan of instruction (POI), lesson plan (LP), study guide/workbook, or measurement device technical additions or deletions.

2.5. Formal Technical Training Course Types. The 15 types of formal training described in paragraphs 2.5.1 through 2.5.15 are used singularly or in varying combinations to meet Air Force training needs. For information on the course numbering system go to AETC/A3PV Technical Training Policy SharePoint site at <https://cs3.eis.af.mil/sites/AE-ED-00-79/default.aspx>. **Note:** All types 2, 3, 4, 6, 7, 8, A, C, W and M courses require a Training Standard, Course Chart, Plan of Instruction (POI), Lesson Plans, Measurement Plan, and measurement devices.

2.5.1. Type 1, Special Contract Training. Formal training of a one-time or limited nature contracted with civilian industrial or educational institutions, including commercial off-the-shelf courses. Special contract training is normally used to train selected personnel to operate and maintain new systems. Often personnel in training are initial cadre and AETC instructors who, upon completion of Type 1 training, return to their technical training wing or training group to develop AETC courses. See AETCI 36-2219, *Type 1 Training*, for specific information.

2.5.2. Type 2, AETC Special Training. Formal training of a one-time or limited (1 year or less) nature conducted by AETC instructors at an Air Force base, other military location, or contractor's location. AETC special training is normally used to train personnel to operate and maintain new weapons or systems. Type 2 courses require all course control documents (POI, Lesson Plans, Course Chart, Course Training Standards), measurement plan, and measurement devices, a Risk Management (RM) assessment (see paragraph 4.4.3.11), and a foreign disclosure review, if international students will be trained (see paragraph 4.4.3.6.2). They do not require a CTP, do not earn manpower, and can be used to rapidly stand up a course when in-house resources are available.

2.5.3. Type 3, Resident Regular Training. The most common AFS-centered formal training of a continuing nature conducted at an AETC base, location, or station. Resident regular training includes courses designed for initial training, retraining from one AFS to another, training on special or new equipment and procedures, advancement within an AFS, and initial skills multiphased Air Force Specialty Code (AFSC) awarding courses.

2.5.4. Type 4, Field Training:

2.5.4.1. Field training is formal technical training conducted at operational locations by a field training detachment (FTD) or a field training team (FTT).

2.5.4.2. The FTD mission is to qualify personnel on new equipment and in new techniques and procedures, increase personnel skill and knowledge, acquaint personnel with specific systems, keep personnel up to date on training concepts and requirements, and maintain individuals at given proficiency levels.

2.5.4.3. FTTs are teams of FTD instructors who conduct training at operational bases without an AETC presence using that base's facilities. Mobile training sets may be used to support training and usually consist of trainers, training aids, and select operational equipment.

2.5.5. **Type 5, Training by Other U. S. Government Agencies (Excludes Interservice Training Review Organizations [ITRO]).** Formal training conducted by the Army, Navy, an Air Force agency or unit other than AETC, or other government agencies/organizations inside or outside of the Department of Defense (DoD). Type 5 training does not include ITRO consolidated or collocated training (see AFI 36-2230(I), *Interservice Training*) or DoD executive agent courses (see DoDD 5101.1, *DoD Executive Agent*).

2.5.6. **Type 6, DL.** Formal training designed for export to students at bases of assignment and for students to complete without AETC course-qualified instructor on-site expertise. See AETCI 36-2208 and AFI 36-2201, Chapter 4, for information on interactive courseware development and DL.

2.5.7. **Type 7, Mobile Training Team (MTT).** AETC instructors from organizations that typically provide Types 2, 3 and 7 training, who conduct training at an operational base using that base's facilities. Mobile training sets may be used to support training and usually consist of trainers, training aids, and select operational equipment.

2.5.8. **Type 8, ITRO.** A consolidated formal training course with the Air Force as lead service. Course faculty includes fair share instructor representation from participating services and the host service. Usually, a mixture of service personnel teach the course.

2.5.9. **Type 9, ITRO.** A consolidated formal training course with another service as lead. Course faculty includes fair share instructor representation from participating services and the host service. Usually, a mixture of service personnel teach the course.

2.5.10. **Type A.** DoD executive agent course with the Air Force as lead.

2.5.11. **Type B.** DoD executive agent course with other than the Air Force as lead. Air Force students attend these courses on a quota basis.

2.5.12. **Type C, ITRO.** Air Force collocated courses. These are Air Force formal training courses conducted on another service installation.

2.5.13. **Type D, ITRO.** Other service collocated courses. These are other service courses conducted on an Air Force installation.

2.5.14. **Type W, Wartime Training Course.** Formal training course designed to train different tasks and/or equipment for a wartime scenario. The wartime version of a course will have a different course number and require a separate build in TTMS ICIS and student management.

2.5.15. **Type M, Basic Military Training.** BMT is initial entry training for the Air Force.

2.6. Common Training Courses. Course designation for management and resourcing of common training embedded in multiple "feeder" courses. The common course is established for manpower pricing purposes and for efficient use of training equipment and resources within the training group.

2.7. Instructional System Development:

2.7.1. Comply with instructional system development (ISD) procedures and guidelines as outlined in AFMAN 36-2234, *Instructional System Development*, and AFH 36-2235, *Information for Designers of Instructional Systems*, Volumes 1 through 13. Use ISD to develop and revise all technical training and BMT instruction. Use the ISD process to ensure the most effective, high quality training development. HQ AETC/A8X provides guidance on applying ISD. Guidance is also available from HQ AETC/A5T (previously HQ AETC/A3I) on advanced distributed learning (ADL) and sharable content object reference model (SCORM) specifications and standards.

2.7.1.1. Training programs are designed to meet user requirements and maximize training resource use. To determine the most effective, cost-efficient method of instruction, conduct a front end analysis, including media and cost benefit analysis, in accordance with AFH 36-2235, Volume 5, *Information for Designers of Instructional Systems Advanced Distributed Learning: Instructional Technology and Distance Learning*, and AETCI 36-2208. Consider various methods of training delivery, including IMI, DL, and technology insertions, during all course development projects and major revisions. Refer to AETCI 36-2208 for more information.

2.7.1.2. Develop and deliver performance-based training as much as possible.

Chapter 3

COURSE RESOURCE ESTIMATE (CRE)

3.1. CRE Purpose. A CRE is the initial vehicle used to seek training resource funding. It includes resources required to initiate and sustain training through the future years defense program (FYDP). See example in Attachment 2. **Note:** Type 4 courses are resourced according to AFI 36-2201, Attachment 19, and are not required to complete a CRE.

3.1.1. A CRE is the first document in the course control document (CCD) chain. The CRE is an accurate estimate for, and foundation upon which to build, the CTP, but it is not in finite budget or manpower/SMY detail. A CRE is submitted prior to the CTP for new courses or when additional resources are needed for existing courses. Resource requirements are refined as the CTP is finalized.

3.1.2. Begin developing the CTP narrative and annexes while the CRE is in coordination. HQ AETC/A1MRT and A3RB (HQ AETC/SGU for medical courses) process the CRE as a draft annex. Following manpower validation, HQ AETC/A1MRT and HQ AETC/A3RB-TT (HQ AETC/SGU for medical courses) notify the HQ AETC/A3T TPM that resources have been identified. If resources have been identified or are available from other sources, the HQ AETC/A3T TPM approves the CRE and requests a CTP from the TM. **Note:** TMs will develop CTPs according to guidance in Chapter 4, and forward to the proper offices for approval and certification.

3.1.3. CRE development time is within 8 weeks (40 workdays) from the date of the STRT minutes or tasking memo, as applicable, in accordance with AFI 36-2201. Requesting agencies must submit a complete set of training requirements when requesting a CRE. Incomplete requirements will increase CRE production time.

3.2. When To Develop a CRE. HQ AETC/A3T TPM tasks the TM to develop the CRE in order to begin resourcing training requirements. The tasking may be through the appropriate meeting minutes or a separate tasking memo. CREs generated for any other reason must first be coordinated with the HQ AETC/A3T TPM. **Note:** Submit a CRE when additional resources are required.

3.2.1. The CRE should be developed before the U&TW, once clear requirements are identified. It should present alternative course design and delivery methodologies based on the known requirements and a media and cost/benefit analysis.

3.2.2. The CRE will be vetted through the U&TW process, and selected options will be coordinated with HQ AETC/A3T TPM.

3.3. What To Include in the CRE. The CRE contains the following information: **Note:** When developing estimations for paragraphs 3.3.1 through 3.3.12, refer to Chapter 4.

3.3.1. Reason to develop new training or change existing training, such as an approved change to *Air Force Officer Classification Directory* (AFOCD) or *Air Force Enlisted Classification Directory* (AFECD); new mission; new systems and equipment; AFCFM/MAJCOM functional manager-driven requirements resulting in a training standard change; STRT/U&TW; FEQS; OAR; other AETC course evaluations.

3.3.2. Estimated classroom/lab (C/L) instructor hours, course length, shift group limit, programmed group size, minimum group size, maximum group size, expansion group size, washbacks, and total programmed entries changes.

3.3.3. Local MO-provided manpower requirement estimates, for instructors, maintenance personnel, training development personnel, training overhead support, BOS, and SMY for courses that earn manpower or have a SMY bill. **Note:** A SMY annualizes an authorization dedicated to student coverage. SMY is a method to account for pipeline or PCS course lost duty time for students who are in formal school training, part of the Air Force end strength, and are not yet available for operational unit duty. SMY tracking is used to determine personnel pay, housing and support. See AETCI 38-202, *Education and Technical Training Manpower*, for additional information.

3.3.4. Estimate of training equipment, training spares, support equipment (test equipment and special tools), and contractor logistics support. Include as much information as possible, to include computer hardware and software requirements. **Note:** Ensure life-cycle maintenance, sustainment, and replacement costs are included in the estimate.

3.3.5. Facility requirement estimates, including new and/or modified classroom and laboratory, housing, specialized space, and administrative space needs, as well as other known additional space and special needs such as electricity, floor loading, security, local area network server, proxy or cable run requirements, TEMPEST, air-conditioning, and door, ceiling, and hallway dimensions. See AFH 32-1084, *Facility Requirements*, for additional information.

3.3.6. Funding requirement estimates, including funds for media, instructional technology applications, training and support equipment, new facilities or current facility modifications, course/curriculum development or implementation manpower, course supplies, commercial publications, spares support, projected temporary duty (TDY) costs, depot level repairable funding, and contractor support (such as equipment maintenance). Address estimates for each fiscal year as well as FYDP sustainment.

3.3.7. Estimate of any non-AETC support required. Provide information from system training plans, memoranda of agreement, and logistics support memoranda to support the estimate.

3.3.8. Estimate training standard impact.

3.3.9. Estimate course chart impact.

3.3.10. Course security classification and proposed instructional design.

3.3.11. Any known environmental impacts and/or change to current environmental assessments.

3.3.12. Estimate for new, or changes to existing, instructional technology applications (i.e., IMI, Type 6 DL, or ITV) based on media and cost/benefit analysis. See AETCI 36-2208 for additional information. **Note:** Include a copy of the media and cost/benefit analysis as an attachment to the CRE.

3.4. Coordinating CREs:

3.4.1. The TM or designated representative develops the CRE when tasked by HQ AETC/A3T TPM, accomplishes coordination with the local manpower office (MO) local coordination, and forwards it to the HQ AETC/A3T TPM. **Note:** Ensure the local trainer/equipment maintenance activity is included as part of the local coordination. Include the base civil engineer if there are facility issues in the CRE.

3.4.2. The HQ AETC/A3T TPM will coordinate the CRE with HQ AETC/A3R (for non-medical courses), HQ AETC/A1MRT (for non-medical courses), HQ AETC/SGU (for medical courses), and the AFCFM for review and approval. The HQ AETC/A3T TPM will also coordinate with HQ AETC/A7CP if facility requirements are included in the CRE. Allow 30 calendar days for HQ AETC coordination.

3.4.3. The HQ AETC/A3T TPM will provide the coordinated CRE to the AFCFM 30 calendar days prior to the U&TW, as applicable.

3.5. Funding CREs:

3.5.1. If the course can be funded within the TRW, the TM develops the CTP according to Chapter 4 and submits the documentation accordingly.

3.5.2. If not, the TM forwards the CRE to the wing/group resource manager.

3.5.2.1. The RM confirms non-availability of local support, obtains wing/group approval, and returns the CRE to the TM.

3.5.2.2. The TM emails the CRE to the HQ AETC/A3T TPM.

3.5.2.3. The HQ AETC/A3T TPM will coordinate the CRE with HQ AETC/A3RB and HQ AETC/A1MRT (HQ AETC/SGU for medical courses) for validation of resource estimate. Note: If the CRE includes a memorandum from the local manpower stating the proposed changes have no impact, coordination with HQ AETC/A1MRT is not necessary.

3.5.2.3.1. HQ AETC/A1MRT validates the manpower estimates.

3.5.2.3.2. HQ AETC/A3RB (HQ AETC/SGU for medical courses) computes the remaining funding obligations and generates the CRE Part II. The CRE Part II includes headquarters-level computed costs (e.g., TDY-to-school, instructor and SMY, etc.) and displays the total resource bill for AFCFM review.

3.5.2.4. The HQ AETC/A3T TPM forwards the CRE to the AFCFM for resourcing. The HQ AETC/A3T TPM will establish an expiration date for the CRE. The expiration date will consider the POM cycle, MILCON needs, and AETC annual manpower (instructor) pricing cycle.

3.5.2.5. The AFCFM notifies the HQ AETC/A3T TPM if funding is available.

3.5.2.6. The HQ AETC/A3T TPM notifies the TM.

3.5.2.7. The HQ AETC/A3T TPM will follow up with the AFCFM at least quarterly until the CRE is funded or the expiration date is reached. The HQ AETC/A3T TPM will update the TM.

3.5.2.8. The AFCFM contacts the HQ AETC/A3T TPM when funding is approved.

3.5.2.9. The HQ AETC/A3T TPM instructs the TM to proceed with CTP development, and courtesy-copies HQ AETC/A1MRT, and HQ AETC/A3R.

3.5.2.10. If funding is not available or not approved, the AFCFM, HQ AETC/A3T TPM, HQ AETC/A3R (for non-medical courses), HQ AETC/SGU (for medical courses), and TM initiate an out-of-cycle request or look for workarounds until the CTP can be developed. **Note:** A CTP will not be approved without workarounds/alternatives that satisfy the funding requirements.

3.6. Resourcing enlisted medical courses developed and taught on METC:

3.6.1. Enlisted medical courses developed and taught on METC are considered Type 5 training. METC has academic oversight for curriculum development and delivery.

3.6.2. HQ AETC/A3T TPM provides METC with training requirements for each course.

3.6.3. METC conducts a curriculum review and develops a resource estimate.

3.6.4. METC provides the resource estimate to HQ AETC/A3T TPM.

3.6.5. HQ AETC/A3T TPM, working with HQ AETC/SGU, validates the resource estimate.

3.6.5.1. If HQ AETC/A3T TPM and HQ AETC/SGU concur with the resource estimate, the HQ AETC/A3T TPM forwards the estimate to the AFCFM for resourcing.

3.6.5.2. If HQ AETC/A3T TPM and/or HQ AETC/SGU non-concur with the resource estimate, HQ AETC/A3T TPM will work with METC to resolve any issues. HQ AETC/A3T TPM will work with the AFCFM if changes to training requirements are necessary to resolve resourcing issues. HQ AETC/A3T TPM will provide a revised resource estimate to the AFCFM for resourcing, as applicable.

3.6.6. Once all resourcing has been validated and funding approved, HQ AETC/A3T TPM instructs the TM to develop the training plan, as appropriate.

Chapter 4

TRAINING PLANS

4.1. Purpose.

4.1.1. The training plan is the primary resourcing document for planning, programming, and implementing training. The plan is based on implementation year training requirements. It is the justification for using current and future resources and acquiring additional resources necessary to conduct the specified training in a course or courses.

4.1.2. The training plan outlines the actions necessary to bring new or revised training on line. The training plan contains the training standard and proposed course outline; addresses security and foreign disclosure restrictions; defines in detail the course parameters; the resources required, such as facilities, equipment, manpower, etc.; and the actions needed to acquire the resources to accomplish the training. It is a refined and accurate statement of resources required to support a course as compared to the estimate in the CRE.

4.1.3. Two types of training plans are used for technical and basic military training, the course training plan (CTP) and the abbreviated training plan (ATP). **Note:** Phase II medical training programs are conducted at various medical treatment facilities in accordance with AFI 41-105, *Medical Training Programs*. These programs will have a course training plan if the programs consume SMYs (see paragraph 4.2.2.1.).

4.1.3.1. A CTP is used for new courses, changing the AFSC of an existing course, changing the training type on an existing course, or transferring an existing course from one location/base to another. A CTP may also be used for management and resourcing of common training embedded in multiple “feeder” courses. Common course CTPs supplement “feeder” course CTPs.

4.1.3.2. An ATP is used to update an existing CTP when changes to the course impact resources or any annex to the CTP. **Note:** An ATP is not required for editorial changes to training standards and/or course charts that do not alter course content or impact resources.

4.2. Courses Requiring Training Plans:

4.2.1. Training plans are required for all Type 3, 4, 6, 7, 8, 9, A, C, M, and W courses. **Note:** For 982 TRG courses, refer to paragraph 4.4.4. for additional information.

4.2.2. Type 5, B, and D courses normally do not require training plans unless:

4.2.2.1. The course consumes SMYs (see paragraph 3.3.3.) but does not earn AETC instructors or affect other AETC resources. A CTP is submitted that includes a narrative and the SMY calculation sheet developed by the local MO. That calculation sheet will include C/L instructor hours, course length-manpower days, course length-manpower hours, shift group limit, programmed group size, minimum group size, maximum group size, expansion group size and any minimum manning or washbacks. Courses that fall into this category are usually taught at DoD schools and instructors are not provided by AETC.

4.2.2.2. The course earns AETC instructors due to Air Force student load and consumes SMYs. In this case, a CTP is submitted that includes a narrative, manpower annex, and SMY calculation sheet. **Exception:** For Type 5 courses developed and taught on the Medical Education and Training Campus (METC), a CTP is submitted that includes a narrative, resource requirements analysis (RRA), and SMY calculation sheet.

4.2.2.3. The course earns AETC instructors due to Air Force student load, but does not consume SMYs. In this case, a CTP is submitted that includes a narrative and a manpower annex. **Exception:** For Type 5 courses developed and taught on the Medical Education and Training Campus (METC), a CTP is submitted that includes a narrative, and a resource requirements analysis (RRA).

4.2.2.4. A course that did not initially earn AETC instructors or impact AETC resources may develop an instructor or resource impact after the Air Force student load exceeds a certain level. When this happens, AETC manpower receives an instructor bill from the host service or agency.

4.2.2.4.1. Manpower will then notify the HQ AETC/A3T TPM and the local MO a training plan is required.

4.2.2.4.2. The HQ AETC/A3T TPM will task the TM to develop and submit a CTP. TRGs have 30 working days from the date notified to submit the CTP. Manpower will not pay the bill until the training plan is submitted, validated, and certified. **Note:** Anytime there is a specific manpower requirement, such as specific grade or AFSC, identified in a memorandum of agreement (MOA) or a memorandum of understanding (MOU), include the MOA or MOU as part of the training plan.

4.3. When to Develop a CTP or Abbreviated Training Plan (ATP): Note: Prior to developing CTP/ATP, TRGs will work with local manpower to determine if proposed changes impact manpower requirements and local logistics and maintenance organizations to verify if proposed changes impact AETC programmed training operations support and/or sustainment costs. Coordinating offices will provide the TRG with a memorandum stating the proposed changes do or do not impact their respective resource area.

4.3.1. Develop a CTP to implement courses supporting new training (i.e., new weapon system, new advanced or supplemental course within an AFSC, new AFSC, etc.), when changing the AFSC of an existing course (i.e., 2E2X1 to 3D0X1), changing the training type on an existing course (i.e., Type 2 to Type 3, Type 3 to Type 6, etc.), and when transferring an existing course from one location/base to another (i.e., Sheppard to Lackland, Lackland to Fort Lee, etc.).

4.3.2. Develop an ATP to update an existing CTP when changes to the course impact resources (i.e., course length, SMY, manpower, equipment, facilities, funding, etc.) or any annex to the CTP (i.e., security, safety, motivational training, risk management, etc.). **Note:** An ATP is not required for editorial changes to training standards and/or course charts that do not alter course content or impact resources.

4.3.3. The ATP includes a summary of changes and any updated/changed annexes.

4.4. Training Plan Format and Content:

4.4.1. Use the training plan format in TTMS ICIS. The CTP consists of a narrative and applicable annexes that justify and support resource requirements and detail plan schedules. Complex annexes may be divided into appendices for clarity. The ATP includes a narrative describing the changes to the original CTP and all updated annexes, as applicable. **Note:** Do not include classified documents/information in the training plan. Instead, identify a POC and provide instructions on how to request classified documents/information.

4.4.1.1. Refer to paragraphs 4.4.4. for specific training plan format and content for 982 TRG courses.

4.4.1.2. For common training courses, show the common course number (usually an ATR course number) and all “feeder” courses on the front cover of the CTP/ATP.

4.4.1.3. For medical courses, Air Force-only Medical Officer courses, medical readiness courses, and common training courses such as Expeditionary Medical Readiness follow normal procedures for training plan format and content. Enlisted medical courses developed and taught on the Medical Education and Training Campus (METC) are considered Type 5 courses. Refer to paragraphs 4.2.2 through 4.2.2.4.2. for Type 5 training plan content.

4.4.2. **Narrative.** Provides an overview of information in the annexes and appendices. It describes planned course rationale, assumptions, and conditions. Identify any piggyback or “feeder” courses in the narrative, including their course numbers. Piggyback courses must be reflected on the mother course’s course chart and the manpower pricing record. The narrative includes specific paragraphs addressing the following topics:

4.4.2.1. **Course Data.** Include the following information:

4.4.2.1.1. Reason for Development. Explain the reason for developing the course and training plan, such as an STRT/U&TW, FEQS, AFS change, or AFCFM feedback. Provide a brief description of the changes to the course, such as addition or deletion of training requirements, new or replaced equipment, etc. Include the planned training implementation date.

4.4.2.1.2. Course Description. Provide a brief description of the subject matter, equipment, or system for which training will be provided. For common training courses, ensure the description identifies the course as being for management and resourcing purposes only. Describe how the common training fits into all the “feeder” courses. Describe reasons for use of modified training day, if applicable.

4.4.2.1.3. Instructional Design. Identify the course instructional design, as shown on the course chart. Summarize the media and cost benefit analysis results leading to the instructional design decision.

4.4.2.1.4. Security Classification. Include instructional material classification and control, if appropriate, and the point in the course at which trainees must have a security clearance, if required. **Note:** Course classification will equal the highest classification of material or information disseminated to the students

4.4.2.1.5. Foreign Disclosure. Include a foreign disclosure disclaimer if foreign military/international students are to be trained. Examples: (1) “Foreign Disclosure: This course contains information which may not be disclosed to international students

without proper authorization. Refer to the foreign disclosure memorandum in the security annex for further information.” (2) “Foreign Disclosure: The information in this course is not restricted and may be disclosed to international students. Refer to the foreign disclosure memorandum in the security annex for further information.”

4.4.2.2. **Control Documents.** The narrative’s course control documents consist of the training standard (either an STS or a CTS) and the course chart.

4.4.2.2.1. **Training Standard.** Provide a brief summary of major STS and/or CTS changes that affect resources and the current development status (straw man, draft, final, etc.). If resource constraints prevent complete STS or CTS implementation, describe constraints and applicable interim and long term action(s) to correct deficiencies. Include workarounds and a projected STS or CTS full implementation date. Specific training standard line items are identified with a slash (/) until programmed resources are available. **Note:** Common training courses using a CTS will identify all “feeder” courses.

4.4.2.2.2. **Course Chart.** Briefly summarize major course chart changes that affect resources and describe the course chart development status. If applicable, summarize the impact on Type 3 enlisted and officer initial skill-awarding course wartime course parameters. **Note:** Ensure piggyback courses are reflected on the mother course’s course chart. For common training courses, identify all “feeder” courses in the Remarks section.

4.4.2.3. **Total Programmed Entries and Scheduling Constraints.** Specify total programmed entries for the FY when the course will be implemented, and briefly describe course parameters, class or student scheduling constraints, such as group sizes or minimum interval. Use TRQI requirements from the current fiscal year (FY) pricing baseline, including NPS student programmed attrition, as the total programmed entries baseline. Describe in this section other actions necessary to accommodate foreign military/international students (such as computer access authorization processes). **Note:** If foreign military/international students will be trained, ensure a foreign disclosure memorandum is included as part of the security annex.

4.4.2.4. **Manpower Authorizations and Personnel Specifications:**

4.4.2.4.1. **Manpower Authorizations.** Provide a brief description of manpower required to support, develop, and conduct the course as identified on the course evaluation data sheet (CEDS). Refer to AETCI 38-202, *Education and Technical Training Manpower*, for more information on the CEDS. Summarize the overall impact to manpower requirements such as increases/decreases in instructors and SMY. For more information on SMYs, see paragraph 3.3.3. Work manpower authorizations with local MO, HQ AETC/SGU (medical courses), and TRS resources, as applicable, to ensure availability. Consider SMYs when addressing all initial skill courses and all courses that are 100 academic days or longer in this portion of the narrative. Ensure piggyback courses are reflected on the mother course’s manpower pricing record. **Note:** TRG overhead and support authorizations, such as TMs, training developers, training resources, and training evaluators, are based on Air Force approved manpower standards. HQ AETC/A1MRT applies these standards and assigns earned authorizations. If earned authorizations necessary for support and

development of training are not available, funded authorizations may be reallocated across the TRGs based on the criticality of the current training priorities. Remaining shortfalls will be reviewed for possible inclusion in the program objective memorandum (POM).

4.4.2.4.2. **Personnel Specifications.** Specify and explain any factors that affect personnel selection, such as field experience, security clearances, educational requirements, special experience identifiers (SEI), specific grade requirements, previous training, and physical requirements.

4.4.2.5. **Facilities:**

4.4.2.5.1. **Training Facilities.** Identify training facilities such as classrooms, laboratories, training areas, controlled substance and high value storage, etc., needed to support the course. Indicate if existing facilities satisfy the training requirement. If additional facilities, training space, or modification to existing facilities are required, summarize requirements and who will provide the facilities or funding. Address cross-utilization of training facilities.

4.4.2.5.2. **Support Facilities.** Identify installation support facilities required to support training such as dining facilities, lodging, and medical for non-prior service and TDY students. If additional facilities are required, summarize requirements. If additional maintenance or student BOS are not required, state that.

4.4.2.6. **Logistics:**

4.4.2.6.1. Summarize actions taken to establish authorizations for equipment required to implement and support the course. Include existing spares, repair parts, support equipment, training spares, special or modified tools, maintenance skills and maintenance technical data (reference the logistics annex). State whether logistics resources are adequate to support the course. Describe maintenance support needed for course equipment and the source of the support. If logistics resources are not available, summarize the need and how the resources will be acquired. Provide details in the logistics annex. Address equipment cross-utilization. Identify equipment utilization agreements for non-AETC equipment. Address other MAJCOM equipment used in the MOA. Refer to the TTMS generated equipment list, or an AETC Form 120, *Training Equipment List*, in the logistics annex.

4.4.2.6.2. If applicable, specify exceptions to the established configuration control policy, such as modifications needed or not needed.

4.4.2.7. **Instructional Materials.** Include a summary of materials required to support the training course.

4.4.2.7.1. State requirements for training support data such as research, development, test, and evaluation manuals; contractor in-house training documents; contractor-prepared courses and software; manufacturer's handbooks; preliminary operating and maintenance instructions; contractor-prepared training aids; and computer software, programs, and program documentation.

4.4.2.7.2. Summarize AETC instructional material requirements such as study guides, workbooks, etc. Identify audiovisual, technology insertion or commercial publication requirements.

4.4.2.7.3. Briefly summarize instructional materials status. Explain actions taken/planned to ensure materials are available for the first class.

4.4.2.8. **Comptroller:**

4.4.2.8.1. Summarize cost rationale for course instructional design or selected medium. Refer to the ITU media and cost/benefit analyses. For course changes, show proposed design or medium cost estimate compared to the existing design or medium. Use the comparison to determine the most cost-effective and efficient means to present information to the students. Include cost comparison for various methods of instruction. At minimum, consider changes in course length, instructor or overhead personnel requirements, facility or space requirements, operation and maintenance (O&M) funds use changes, and, if applicable, instructional method or design required medium cost changes.

4.4.2.8.2. Summarize additional procurement appropriation funds required for base-funded investment equipment items (57*3080) (stand-alone items or systems valued at \$250,000 or more), and O&M appropriation funds (57*3400). Identify initial and phased (quarterly) TDY, contractual services, supplies, and equipment requirements by element of expense investment code (EEIC). If alteration or construction funds are required, include relative information in this section of the training plan, indicating action taken. Reference the FY operating budget in which the funding requirements have been or will be included.

4.4.2.9. **Environmental Impact.** Summarize environmental impact analysis for new training and proposed course changes that would affect average daily student load, number of permanent party personnel, chemical processes or chemical materials, or facility additions/construction. Refer to AF IMT 813, *Request for Environmental Impact Analysis*, in the annex.

4.4.2.10. **Interservice Review.** Summarize the results of the review required by AFI 36-2230(I), *Interservice Training*. Indicate whether an existing other service course will or will not meet Air Force requirements.

4.4.2.11. **Motivational Training.** Explain why motivational training is necessary or is being deleted if previously authorized. Summarize how motivational training will be used to achieve course objectives. Identify controls in place to ensure it is properly applied. If motivational training is used in the course, approved procedures will be included in the annex.

4.4.3. **Annexes.** Annexes provide detailed documentation of resource requirements identified in the narrative. Separate unique, voluminous, or classified materials from the training plan body and place in annexes. Normally, the responsible authority for the annex subject/area approves or concurs by signing on that annex. A complex annex may be divided into appendices. The following annexes should be included, as required:

4.4.3.1. **Course Control Documents.** This annex contains the training standard and course charts. Include:

4.4.3.1.1. A copy of the approved STS or CTS, when available. **Note:** Include only the training standard when the training standard is part of a CFETP. When there is no approved standard, use the draft STS or CTS in the original plan and update it later with the approved training standard. Do not delay the development process over lack of an approved training standard. **Note:** Do not implement new or revised training without an approved TS or approval of the CFM to use a draft TS.

4.4.3.1.2. A copy of the course chart.

4.4.3.2. **Manpower Annex.** For information on multiple instructor requirements (MIR), MIR justification, the manpower annex, training plan manpower requirements, and AETC Form 896, *Lockstep/Multitrack Course Evaluation Data*, refer to AETCI 38-202. **Note:** BMT manpower requirements are earned on a separate Air Force manpower standard (AFMS). The BMT training plan does not require a manpower annex if instructor contact hours do not change. If instructor contact hours change, a manpower annex and adjustments to the manpower standard are required.

4.4.3.2.1. The Base MO develops and furnishes the manpower data for inclusion in the manpower annex. The manpower annex consists of the course manpower standard data and pricing record, CEDS, annotated basic authorization (BA) (for nonstandard BA), washback calculation sheet/reports (as applicable), AETC Form 896, *Lockstep/Multitrack Course Evaluation Data*, (as applicable), and MIR worksheet including MIR justification (as applicable). The Base MO will initiate the request for a new Organizational Structure Code (OSC), as necessary.

4.4.3.2.2. MIR requirements will be based on equipment, safety, supervision, span of control, and related factors determined during the task analysis and validation of the course. The TM provides detailed justification, to include photographs, diagrams, technical order references, etc., as necessary to support all MIR requirements. **Note:** Use applicable risk assessments to support MIR when developing justification.

4.4.3.2.3. Complete justification for minimum manning requirement (MMR) is included in the CEDS.

4.4.3.2.4. The MO and school commander or representative (usually the TM) signs the course priceout. The course priceout includes a justification section to document offset use requests from other courses or sources, courses being replaced, and BA actions desired. This section is also the area to summarize course overall manpower impact.

4.4.3.2.5. Manpower annex development requires cooperation between the MO and TM, with the TM providing new course parameter data. Manpower studies and/or data validation may be necessary for an accurate determination of necessary manpower resources. **Note:** See Attachment 3 for more information on the manpower decision process.

4.4.3.3. **Facilities Annex.** Address the following areas, as appropriate:

4.4.3.3.1. Current facilities.

- 4.4.3.3.2. Classroom numbers and sizes.
- 4.4.3.3.3. Laboratory numbers and sizes.
- 4.4.3.3.4. Enlisted, officer, or civilian housing availability and quantity.
- 4.4.3.3.5. Specialized space: Number and size of rooms.
- 4.4.3.3.6. Administrative space: Number and size of rooms.
- 4.4.3.3.7. Maintenance space.
- 4.4.3.3.8. Other support facilities.
- 4.4.3.3.9. Additional space and other special needs such as electricity, floor loading, security, IMI, local area network (LAN) servers and proxies and cable runs (overhead or wall space), TEMPEST, air-conditioning, and door, ceiling, and hallway dimensions.
- 4.4.3.3.10. Actions taken to provide additional space requirements.
- 4.4.3.3.11. Work to be performed by the base civil engineer, identified on AF Form 332, *Base Civil Engineer Work Request*.
- 4.4.3.3.12. O&M projects for existing facilities modification.
- 4.4.3.3.13. New construction required.

4.4.3.4. **Logistics Annex.** Include training and support equipment, logistics support, and communications/computer systems requirements. TMs look for equipment first within the squadron, then the TRG and TRW. Consider sharing equipment with other courses or using multiple shifts. If equipment is not available on base, the TM should request funding via normal wing channels. If time permits, include unfunded requirements in the financial plan or budget execution report. Each appendix will be approved by the TRW office of collateral responsibility (OCR) that provides related logistics support. Use the following appendices to group annex data. **Note:** Refer to Attachment 4 for more information on the equipment resource availability decision process.

4.4.3.4.1. **Appendix 1, Training and Support Equipment.** Document training and support equipment requirements on TTMS equipment list or AETC Form 120 and include the list/form in the appendix. Include all items necessary to conduct the course if relocated. Include non-AETC owned equipment (except 982 TRG). Identify each shortage and describe actions to correct the shortage. Include all estimated delivery dates. Refer to Attachment 5 and the TTMS user's manual for instructions on completing the TTMS equipment list or AETC Form 120. The completed list/form becomes the allowance standard for the course and is an essential resourcing prerequisite for training plan approval/certification. Once a training plan is certified and outside the training plan context, the equipment list/AETC Form 120 is a living document and must be maintained in accordance with supply equipment accounting requirements in AFI 23-101, *Air Force Material Management*. **Note:** For ground instructional training aircraft, follow guidance in AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination*.

- 4.4.3.4.2. **Appendix 2, Logistics Support Requirements.** Include prime maintenance center, authorized spaces, maintenance personnel training requirements, technical publications requirements, equipment spares, contract maintenance requirements, and any other pertinent logistics support information.
- 4.4.3.4.3. **Appendix 3, Communications/Computer Systems Requirements.** Describe requirements and actions taken to acquire course automatic data communications requirements.
- 4.4.3.4.4. **Appendix 4, Non-AETC Logistics Support Requirements.** Describe logistics support required from other sources such as depot maintenance. Include copies of support agreements, MOAs, MOUs and letters that identify what agencies recognize and intend to provide.
- 4.4.3.5. **Comptroller Annex.** Describe course comptroller support. Include the appropriate budget information to enable equipment, spares support, TDY, instructional technologies funding.
- 4.4.3.6. **Security Annex.** Provides for control of classified information used in a course. Annex also identifies if a foreign disclosure review was conducted and provides guidance and authority disclosure of classified military information (CMI) and/or controlled unclassified military information (CUMI) to foreign military/international students. Foreign disclosure guidance and authority is provided by the wing FDO as part of the foreign disclosure review.
- 4.4.3.6.1. The foreign disclosure review process (para. 4.4.3.6.2.) will be accomplished on any new course or any existing course during revision or change if foreign military/international students are to be trained.
- 4.4.3.6.1.1. For revisions or changes to existing courses, TM will review the Program Guidance Letter/Program Technical Training (PGL/PTT) for MX20 quota and historical records for any instance of foreign students being trained on other than MX20 quotas (previous 5 years and outyears). TM will also check ETCA for a MASL number assigned to the current course.
- 4.4.3.6.1.2. If no MX20 quota or instance of foreign students being trained appears in the history or outyears, a foreign disclosure review is not required.
- 4.4.3.6.1.3. If MX20 quotas are found in PGL/PTT, instances of foreign students being trained appear in the history, or a MASL number is assigned, include foreign disclosure review as part of CTP/ATP.
- 4.4.3.6.2. Foreign Disclosure Review Process (see [Attachment 6](#)).
- 4.4.3.6.2.1. TM will coordinate with the Wing FDO to conduct review of course material for foreign disclosure restrictions. **Note:** The prime faculty development unit will coordinate with their respective Wing FDO to conduct the foreign disclosure review for their assigned courses.
- 4.4.3.6.2.2. TM provides the wing FDO with a copy of the training plan narrative describing the target audience for the course, the plan of instruction, and the course equipment listing (AETC Form 120). For course revisions or changes, include a summary memorandum identifying new information, equipment,

applications, etc., included as part of the revision or change.

4.4.3.6.2.3. Wing FDO, working with TM and course SME, will review course material and compare with appropriate Delegation of Disclosure Authority Letter (DDL) to determine any disclosure restrictions.

4.4.3.6.2.4. Wing FDO will issue a disclosure memorandum in accordance with AFI 16-201, *Air Force Foreign Disclosure and Technology Transfer Program*, identifying specific disclosure restrictions based on DDL to HQ AETC/IAD FDO, with copy to AFSAT FDO, and TM. If the disclosure review determines there are no disclosure restrictions, the Wing FDO will issue a memorandum stating the information in the course is not restricted and may be disclosed to international students.

4.4.3.6.2.5. HQ AETC/IAD FDO (or AFSAT FDO in absence of HQ AETC/IAD FDO) will review disclosure memorandum and provide concurrence on disclosure restrictions back to wing FDO. Wing FDO will notify TM when the memorandum is approved by HQ AETC/IAD. **Note:** If HQ AETC/IAD nonconcur, HQ AETC/IAD and wing FDO will resolve any issues. Wing FDO will provide corrected and approved memorandum to TM and HQ AETC/IAD.

4.4.3.6.2.6. TM will include disclosure memorandum in training plan security annex. For courses not requiring training plans such as Type 2 courses, file the disclosure memorandum in the course record set. If new information has been added or changes made to the course after memorandum is issued, the TM will coordinate with the Wing FDO to review new material and/or changes. Wing FDO will update the memorandum, as applicable, and coordinate the updated memorandum with HQ AETC/IAD FDO and AFSAT FDO. TM will update the memorandum in the security annex or course record set, as applicable. **Note:** When AFSAT assigns an approved MASL number to the course, TM will annotate the MASL number on the memorandum in the security annex or course record set, as applicable. Pen and ink annotations are acceptable.

4.4.3.6.2.7. TM will include a foreign disclosure disclaimer in course data section of the training plan. Reference paragraph 4.4.2.1.5. for sample disclaimers.

4.4.3.6.2.8. TM, working with TDE, will ensure POI instructional guidance includes a foreign disclosure disclaimer for each lesson, where appropriate. Example: "This lesson contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information."

4.4.3.7. **Interservice Training Review Annex.** Describe in detail or attach an interservice support agreement, MOU, or MOA, as prescribed by AFI 36-2230(I).

4.4.3.8. **Environmental Assessment Annex.** Environmental impact analysis is required for new training or proposed course changes that would affect average daily student load, number of permanent party personnel, chemical processes or chemical materials, facility additions, or new construction.

- 4.4.3.8.1. Complete and submit an AF IMT 813 to initiate the environmental impact analysis process, as required by 32 CFR 989, *The Environmental Impact Analysis Process (EIAP)*.
- 4.4.3.8.2. The chief of the environmental flight determines if the proposal qualifies for a categorical exclusion (CATEX) or does not qualify for a CATEX and further environmental analysis is required and signs the AF IMT 813.
- 4.4.3.8.3. If the proposal does not qualify for a CATEX, further environmental analysis will result in either:
- 4.4.3.8.3.1. A finding of no significant impact supporting an environmental assessment signed by the chairperson of the appropriate environmental protection committee.
 - 4.4.3.8.3.2. A record of decision (ROD) supporting an environmental impact statement signed by SAF/IE/IEI.
- 4.4.3.8.4. The training plan must include the signed AF IMT 813 and a signed CATEX determination, finding of no significant impact, or ROD, as applicable, when an environmental impact analysis is required/conducted to ensure compliance with the National Environmental Policy Act.
- 4.4.3.9. **Safety Annex.** The wing safety office or equivalent (SE) reviews and coordinates on this annex. SE will verify and certify MIRs identified for safety purposes, such as, working with high voltage electricity or confined space entry, are required by specific AFOSH standards. SE will certify MIRs mandated as a risk control measure to prevent injury to personnel. Include in this annex a memorandum signed by the Chief of Safety or Ground Safety Manager citing applicable safety concerns and/or Air Force Occupational Safety and Health (AFOSH) standards IAW AETCI 38-202.
- 4.4.3.10. **Motivational Training Annex.** Explain why motivational training is necessary in the course. Summarize how motivational training procedures relate to specific objectives and achievement of those objectives. Include motivational training procedures to be used in the course and specific controls in place to ensure each procedure is properly applied.
- 4.4.3.10.1. Motivational training procedures are only authorized as reflected in the training plan.
 - 4.4.3.10.2. When used, the motivational training annex must be routed through the TRW/CC and 2 AF/CC prior to sending to HQ AETC/A3T for approval by HQ AETC/A2/3/10. This routing is separate from and accomplished prior to routing the final training plan.
 - 4.4.3.10.3. The motivational training annex will be reviewed and approved annually by the applicable group, wing, numbered Air Force, and HQ AETC/A2/3/10.
- 4.4.3.11. **Risk Management (RM) Annex.** All courses will conduct a deliberate RM assessment for each applicable activity in accordance with AFI 90-802, *Risk Management*, and AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*. For courses with Technical Order (TO) based activities, a complete RM assessment is still required. TO safety and risk management processes should be referenced in the RM

annex or MFR as part of the RM assessment. Emphasis should be placed on known high risk courses as determined by the commander and his/her staff. The RM assessment should focus on real or potential conditions that may cause mission degradation, injury, illness, death to personnel, or damage/loss of equipment or property associated with training activities. Include the RM assessment as an annex to the training plan. Include in this annex a memorandum signed by the Chief of Safety or Ground Safety Manager verifying applicable safety concerns. **Note:** For common training courses, identify all “feeder” courses on the applicable RM worksheet.

4.4.3.11.1. Type 6 courses are exempt. **Exception:** If/When courses are conducted by a trainer at the receiving unit, an RM assessment is required. In this case, the assessment must be included as an annex to the training plan.

4.4.3.11.2. Sister Service/Other Agency courses are exempt. **Note:** Review AFI 36-2230, *Interservice Training*, applicable contract, support agreements and MOUs for Types 1, 5, 9, and Type B. If/When unclear whether an RM assessment is required, contact HQ AETC/A3PV.

4.4.3.11.3. If the RM assessment identifies no risk/hazards, document an MFR stating an assessment was completed and no risks were identified. The MFR must be signed by Wing Safety and the Squadron Commander (for GSUs, host base safety office applicable).

4.4.3.11.3.1. For courses requiring training plans, insert the MFR into the RM annex. **Note:** Assessment may be signed by Squadron Commander and Wing Safety and take the place of the MFR. For courses not requiring training plans, such as Type 2 courses, file the signed MFR/assessment table/form in the course record set.

4.4.3.11.3.2. ATP processing solely for the RM Annex will not require coordination with HQ AETC/A1MRT, HQ AETC/A3RB-TT, or the local manpower office as long as no additional manpower or resources are required and course parameters are not changed. Submit ATP from the TRG/CC to HQ AETC/A3T.

4.4.4. **Specific Format and Content – 982 TRG Courses:**

4.4.4.1. **Type 3 Courses.** 982 TRG Type 3 training plans will follow normal procedures for format, content, development, coordination, approval and certification outlined in this chapter.

4.4.4.2. **Type 4 Courses.** A course design and development database management plan (CDDDMP) and MAJCOM and host-agency coordinated course control documents satisfy training plan requirements for 982 TRG Type 4 courses. The foreign disclosure review process (para. 4.4.3.6.2.) will be accomplished on any new course or any existing course during revision or change if foreign military/international students are to be trained. The TM has the final approval on Type 4 courses prior to implementation.

4.4.4.3. **Control Documents.** The 982 TRG uses a combined course chart/training standard (CC/TS) for Type 4 training courses.

4.4.4.4. **Logistics.** The 982 TRG will use the AETC Form 120A, *Field Training Equipment List*.

4.5. Training Plan Development, Coordination, Approval and Certification:

4.5.1. Training plan development, local coordination, and TRG approval must be completed no later than 90 days prior to the course implementation date.

4.5.2. Begin developing the training plan upon receipt of the tasking from HQ AETC/A3T TPM or action items from U&TW minutes.

4.5.3. TM will log into TPS to establish a new course number and request a new PDS code, as applicable. Refer to the online (Air Force Portal) TPS software user's manual (SUM) under Access Control – Training Manager. Refer to the paragraph 2.5 for more information on course types and the course numbering system. Note: A new course number and PDS code are not required to update an existing course. Refer to para 4.3.1. for examples of situations requiring a new course number and PDS code.

4.5.3.1. For initial skills courses, a “new course” is defined as a change in the 5 digit enlisted or 4 digit officer AFSC identifier within the course number, such as 2E231 in course number E3ABR2E231 00AA. Example: A new PDS code is required when E3ABR2E231 XXXX changes to E3ABR3D031 XXXX.

4.5.3.2. The PDS code request automatically flows to HQ AETC/A3P for approval and assignment of the PDS code to the new course number.

4.5.3.3. When Air Force officer and enlisted personnel attend the same initial skills course (piggyback course), separate course numbers and course builds are required. Advanced and supplemental courses attended by both officer and enlisted personnel do not require separate course numbers or course builds. Identify the course based on the predominate type of student attending.

4.5.4. For course transfers, see paragraph 4.7 for information on updating TPS.

4.5.5. TM will complete a course announcement in ETCA for new courses and will update existing course announcements, as applicable.

4.5.6. TM begins developing the training plan. Develop the course control documents and the appropriate annexes, such as manpower and personnel, facilities, logistics, comptroller, security, interservice training review, environmental assessment, safety, motivational training, and risk management, as applicable. **Note:** When used, the motivational training annex must be routed through the TRW/CC and 2 AF/CC prior to sending to HQ AETC/A3T for approval by HQ AETC/A2/3/10. This routing is separate from and accomplished prior to routing the approved training plan.

4.5.7. TM forwards the applicable annexes to the respective local agencies for review and coordination per local guidance. Work all annexes with the local agencies at the same time. **Note:** TMs will suspense and follow up, as necessary, with applicable local agencies to ensure a timely response and meet training plan timelines.

4.5.8. TM assembles the training plan, establishes the planned implementation date, and finalizes the narrative.

4.5.9. TM forwards the coordinated training plan to the TRG resources chief.

- 4.5.10. The TRG resources chief validates resources availability and forwards to the TRG Training Director.
- 4.5.11. The TRG Training Director reviews the training plan for compliance with policy requirements and forwards to the TRG commander.
- 4.5.12. The TRG commander or designated representative approves the training plan. Approval signifies that all applicable local agencies have reviewed and approved their respective annexes, and that resources required to support the planned implementation date have been identified.
- 4.5.13. The TRG returns the approved training plan to the TM for final coordination.
- 4.5.14. The TM emails the approved training plan to the local MO for review and coordination. The MO compares course parameters in TPS with the parameters stated in the training plan.
- 4.5.15. The local MO and TM work together to resolve any discrepancies in the training plan.
- 4.5.16. The local MO prepares a memorandum summarizing any manpower impacts, attaches the memorandum to the approved training plan, and emails the complete package to HQ AETC/A1MRT with a courtesy copy to HQ AETC/A3T TPM no later than 60 days prior to course implementation date.
- 4.5.17. HQ AETC/A3T TPM will coordinate all training plans involving interservice training with HQ AETC/A3TI.
- 4.5.18. HQ AETC/A1MRT validates manpower and SMY resource needs. If discrepancies are found, HQ AETC/A1MRT will return the training plan to the local MO for resolution with a courtesy copy to HQ AETC/A3T TPM. Once all discrepancies have been resolved, HQ AETC/A1MRT forwards a recommendation to HQ AETC/A3RB-TT (HQ AETC/SGU for medical courses), with a courtesy copy to HQ AETC/A3T TPM.
- 4.5.19. HQ AETC/A3RB-TT (HQ AETC/SGU for medical courses) reviews and validates the resource impact (O&M start-up costs, substantial recurring costs, etc.) and sends a recommendation for certification to HQ AETC/A3T TPM.
- 4.5.20. If the training plan impacts officer or enlisted initial skills courses, HQ AETC/A3T TPM will forward the training plan to AFPC (officer courses) or 2 AF Detachment 1 (enlisted courses) for review of any impact to the accession plan. AFPC or 2 AF Detachment 1 will notify the HQ AETC/A3T TPM of any impact to the accession plan. **Note:** The HQ AETC/A3T TPM should follow-up with AFPC or 2 AF Detachment 1, as applicable, within two days of forwarding the training plan, however, do not delay certification of the training plan awaiting a response.
- 4.5.21. HQ AETC/A3T TPM prepares the certification memorandum for HQ AETC/A3T signature.
- 4.5.22. After HQ AETC/A3T signature, the HQ AETC/A3T TPM forwards the signed certification memorandum to the TRG commander with a courtesy copy to HQ AETC/FMAM, HQ AETC/FMAT, HQ AETC/A1MRT, HQ AETC/A3RB-TT (non-medical courses only), HQ AETC/A3TI (interservice training courses only), HQ AETC/SGU

(medical courses only), 2 AF/TTOC, the local MO, TRS commander, and TM. **Note:** Courses will not be implemented until the training plan has been certified.

4.5.23. The TM prepares AETC Form 179A, *Course Training Schedule for Allocations*, and forwards to 2 AF/TTOC, if required (refer to paragraph 4.7.5.).

4.5.24. Upon receipt of the certification memorandum, HQ AETC/A1MRT activates the course in TPS.

4.5.25. The TM activates the course in TTMS and flows the course to TTMS student management.

4.5.26. 2 AF/TTOC releases class schedules.

4.6. Training Plan Process for Standardized Faculty Development Courses:

4.6.1. The prime faculty development unit will develop the standardized training plan for the assigned courses and coordinate with the collateral units for applicable collateral annexes to the training plan.

4.6.1.1. Collateral faculty development units will provide the necessary annexes to assemble the standardized course training plan. Annexes from collateral units will be coordinated through their training director before being submitted to the prime faculty development unit for inclusion in the standardized training plan.

4.6.1.2. The prime faculty development unit will assemble the standardized training plan with the annexes from all collateral units and forward the completed training plan to the 2 AF faculty development functional manager for coordination and approval. The completed training plan will be coordinated through the training directors and approved by the 2 AF faculty development functional manager.

4.6.1.3. The 2 AF faculty development functional manager will return the approved training plan to the prime faculty development unit. The prime faculty development unit will process the approved training plan for certification according to paragraph 4.5.14.

4.6.2. The HQ AETC/A3T TPM will certify the course training plan and provide a copy of the certification memorandum to the functional manager and the prime faculty development unit.

4.7. Move Course to Student Management and Activate New or Revised Course:

4.7.1. TM must move course data from TTMS ICIS to the student management database and activate the course in student management no later than 30 days prior to course implementation date.

4.7.2. The TM will validate the project in TTMS ICIS to ensure all information is correct before moving the data to student management.

4.7.3. Carefully plan and time the move of a new or revised course from TTMS ICIS to the student management database. Pay specific attention to the fact that the TTMS ICIS start date (minimum 30 calendar days from the move) will become the revision date, before which TTMS will not allow class start dates.

4.7.4. Before moving a course from TTMS ICIS to the student management database, delete student status history from classes that will be converted to the new/revised course.

4.7.5. If HQ AETC/A3T does not certify the training plan (or delays certification for an extended period), or the course fails to materialize, the TM will deactivate and/or delete the course from the student management database. Users must manually check to ensure information is correct and prevent conflicts with other systems. See the TTMS ICIS handbook on the TTMS website for specific information required for course transfer to student management.

4.7.6. The TM sends the AETC Form 179A to the appropriate 2 AF/TTOC program manager to request release of the class schedule for the new or revised course. In addition to the request for course conversion and the effective date, the AETC Form 179A will include the course revision date in the TTMS student management database, and confirmation that the newly revised course is active. Classes cannot be conducted before the certified training plan implementation date (not applicable to Type 4 courses).

4.7.7. For Type 2 courses, the TM inputs course parameters into TPS, establishes a discontinuation date (no longer than 1 year), builds the course in TTMS ICIS, moves the course data to the TTMS student management database, and emails the HQ AETC/A3T TPM. A training plan is not required. The HQ AETC/A3T TPM will coordinate with HQ AETC/A3RB-TT, and email HQ AETC/A1MRT to request the course be activated in TPS. HQ AETC/A1MRT activates the course based on HQ AETC/A3T TPM email.

4.7.8. For Type 5 courses not requiring a training plan, the TM inputs course parameters into TPS, builds the course in TTMS ICIS, moves the course date to the TTMS student management database, and emails the HQ AETC/A3T TPM. The HQ AETC/TPM will coordinate with HQ AETC/A3RB-TT, and email HQ AETC/A1MRT to request the course be activated in TPS. HQ AETC/A1MRT activates the course based on HQ AETC/A3T TPM email.

4.7.9. When a new course is activated and the schedule released, the TM notifies customers/course users the course is available and solicits their training requirements.

4.8. Move Course to Student Management Within 30 Calendar Days of Class Start Date: Note: Does not apply to Type 4 courses.

4.8.1. When TM moves a new course or course revision from TTMS ICIS to Student Management, the Student Management database forces a conversion date a minimum of 30 calendar days prior to the course start or conversion date. For those isolated, but urgent cases when TMs must start or convert a course within 30 calendar days of implementation, a waiver is required to adjust a course revision date, allowing center-generated classes following course conversion implementation. **Note:** TM will validate the project in TTMS ICIS prior to moving the course to Student Management.

4.8.2. The TM will email HQ AETC/A3PZ, with a courtesy copy to HQ AETC/A3T TPM and the TRG/CC, to justify and request waiver to implement the course at the higher urgency level.

4.8.3. HQ AETC/A3PZ is the waiver approval authority to move courses within the 30-day window.

4.8.4. HQ AETC/A3PZ or a designee notifies the HQ AETC/A5TT TTMS program management office (PMO) when a move is approved.

4.8.5. HQ AETC/A5TT instructs the TTMS customer support to proceed with the move. **Note:** Customer support will take direction only from HQ AETC/A5TT, the TTMS PMO, or the TTMS central customer support.

4.9. Transferring Courses between TRW/TRG.

4.9.1. When courses transfer from one TRW or TRG to another, the gaining TM will obtain the required equipment, training standard, CC, POI and/or syllabus, lesson plans, tests, and training materials from the TM at the losing site.

4.9.2. The gaining TM makes the appropriate changes in TPS to the course number and location if the course parameters remain the same. If the course parameters change, the gaining TM will load the new parameters in TPS.

4.9.3. The losing TM will discontinue the old course after the last student graduates and all student accounting updates have been completed.

4.9.4. The gaining TM will use TTMS ICIS to make appropriate changes to training standards, course charts, and POIs, as applicable. Pen-and-ink changes may be used to correct administrative errors if changes do not affect course resources or content. Ensure the TTMS ICIS is updated to reflect any pen-and-ink changes. **Note:** Updates reflecting pen-and ink changes do not need to flow to the TTMS student management database until the next revision.

4.9.5. The gaining TM will develop and coordinate a training plan for the transferred course, ensuring all necessary annexes reflect the appropriate documentation for the new TRW, TRG, or location, as applicable.

4.9.6. Once HQ AETC/A1MRT activates the course in TPS, the TM uses AETC Form 179A to notify 2 AF/TTOC when the course is ready to convert and schedule. The TM prepares class schedules in TPS and validates and distributes allocations. The first class start date will be at least 30 days after the conversion date.

4.10. Course Cancellation/Discontinuation.

4.10.1. TM initiates course cancellation or discontinuation requests using AETC Form 1, *Course Cancellation/Discontinuation*. Route the request as indicated on the AETC Form 1 to HQ AETC/A3T. **Note:** The decision to not implement a course that has been developed will be considered cancelling the course and require an AETC Form 1 be submitted to HQ AETC/A3T. Course cancellation procedures do not apply to Type 4 courses.

4.10.2. HQ AETC/A3T is the final approval authority for course cancellations or discontinuation.

4.10.3. After HQ AETC/A3T provides final disposition on the request:

4.10.3.1. The HQ AETC/A3T TPM informs the AFCFM and distributes the completed discontinuation form to HQ AETC/A1MRT, HQ AETC/A3RB-TT, HQ AETC/A3TI (ITRO courses only), HQ AETC/FMAM, HQ AETC/FMAT, HQ AETC/SGU (for medical courses), AFSAT, 2 AF/TTOC, and the TM.

4.10.3.2. TMs update ETCA and TTMS accordingly.

Chapter 5

TRAINING STANDARDS

5.1. Training Standards. Two types of training standards are used to support technical and basic military training courses, the specialty training standard (STS) and the course training standard (CTS).

5.2. Specialty Training Standards (STS). An STS describes an Air Force Specialty in terms of tasks and knowledge Airmen in that specialty may be expected to perform or to know on the job. An STS also serves as a contract for training between AETC and its customers, showing which of the overall training requirements are taught in formal schools and correspondence courses.

5.2.1. Requirements. An STS is required in each enlisted CFETP. It identifies core tasks and knowledge necessary for AFS career progression and standardizes Air Force training requirements. STS use is optional in officer CFETPs. Use the TTMS STS template when developing new or revising an existing STS.

5.2.2. Approval. The AFCFM approves an STS only after customer requirement and provider (AETC) capability differences are resolved. Refer to AFI 36-2201, Chapter 5 for more information.

5.2.3. References. Technical references are normally limited to Air Force, DoD, or other government publications. Use of commercial publications must be specifically approved by the AFCFM.

5.2.4. Functions. The STS serves the following minimum functions:

5.2.4.1. Specifically describes the user-command, mission-related training required of specialties listed in enlisted and officer classification publications. List tasks and knowledge as either proficiency codes or behavioral statements specific to required tasks and knowledge.

5.2.4.2. Identifies level of training provided in initial skill, wartime, and other AFSC-awarding courses, but does not include generic leadership and management training requirements, which are satisfied through officer accession and professional military education (PME) programs.

5.2.4.3. Identifies CDC requirements or study references if CDCs are unavailable.

5.2.4.4. Identifies upgrade and qualification training, and SKT and training references.

5.2.4.5. Reference used by supervisors to evaluate formal school graduates.

5.2.4.6. Identifies minimum AFS OJT requirements for each skill level and/or duty position. Provides a foundation for OJT program job qualification standards (JQS) and qualification training package (QTP) development. Lists OJT training tasks as “go” or “no-go.” “Go” means an individual has the proficiency, knowledge, and experience to perform tasks without supervision, and meets the task standard.

5.2.5. STS Preparation. The STS is published as an integral part of the CFETP. Refer to AFI 36-2201, Chapter 5, for guidance on developing the STS.

5.2.6. Preparing STS Training Tasks:

5.2.6.1. Use notes to cover AFS-unique situations. Example: If “wartime elements” has an asterisk, explain in a note.

5.2.6.2. During the STRT/U&TW or when coordinating a draft STS, identify line items that will continue to be taught during wartime. They may be identified by an asterisk left of the paragraph or subparagraph number, in a separate STS column, or as a separate attachment to the STS.

5.2.6.3. In column 1, list the most commonly performed tasks or required knowledge for the most current specialty description duties. Complete the list before assigning resident training and CDC content proficiency codes.

5.2.6.3.1. Have SMEs examine each AFS duty, as listed in the specialty summary and under duties and responsibilities. If the STS pertains to all 3-skill levels, consider the duties in each AFS description. If an OAR is available, list all first job tasks, as well as 5- and 7-skill level tasks, according to the analysis extract forwarded with the OAR.

5.2.6.3.2. Use SME input to determine if duties should be added or deleted because of job performance requirements changes. Document variations from current specialty descriptions, and identify those when coordinating the draft training standard.

5.2.6.3.3. Use SME input to list job tasks under each duty. Subtasks may also be listed. To help ensure complete coverage, compare the initial SME grouping of tasks to the STS and task matching in the OAR training extract STS factor printout.

5.2.6.3.4. Use OAR data, when available, to determine which tasks are performed at each AFS skill level. Consider including tasks performed or knowledge required by 30 percent or more of the personnel in each AFS skill level. For specialties where 30 percent is unrealistic, establish an alternate cutoff point, and maintain supporting rationale in the STS record set folder.

5.2.6.3.5. Use OAR data to determine if because of task difficulty, safety factors, or training emphasis ratings, tasks performed by less than 30 percent should be included in the list. Include in the STS column 1, regardless of percent performing.

5.2.6.3.6. Use SME AFS knowledge to organize and list column 1 duties and tasks for OJT use.

5.2.6.3.7. Provide rationale (OAR data, evaluation feedback, or user input) to support STS column 1 entries. TMs will retain the data with the course record set so that others, such as new course personnel, understand the course content rationale, and as the basis to develop course objectives. Training decision rationale can be documented in the STS factor printout.

5.2.6.4. Write clear task and knowledge statements. The SME and training specialist determine how detailed statements will be. List subtasks for complex tasks that segment performance and training into subtasks (not teaching steps), but do not divide beyond the subtask level. Conversely, task statements that are too general do not provide enough information.

5.2.6.4.1. Do not use subject knowledge statements for task knowledge or performance, and do not use task statements for subject knowledge items. Normally, performance line items begin with verbs and subject knowledge line items begin with nouns. **Note:** If closely related tasks are listed separately, but will be taught together, code them at the same proficiency level.

5.2.6.4.2. Begin task statements with action verbs, such as “operate,” “write,” or “clean.” Use one verb per task statement (unless an additional verb helps clarify the task) to enable the OJT trainer to sign off one task at a time. Two closely related tasks that are accomplished simultaneously should be taught simultaneously and can be listed as a single line item. Otherwise, list tasks separately.

5.2.6.4.3. Write active sentences that describe what the person must do to perform a task (**Example:** Use "Calibrate XYZ" rather than "Perform XYZ calibration"). The implied subject is understood.

5.2.6.4.3.1. Avoid redundant or qualifying phrases, such as "in accordance with local directives," "when appropriate," or "as required."

5.2.6.4.3.2. Avoid vague or ambiguous words, such as "know," "understand," or "determine."

5.2.6.4.3.3. Use “such as” followed by two or three specific examples for clarification. Avoid "and/or" or "etc."

5.2.6.4.3.4. Use simple statements without qualifiers. Examples: “Operate power saw” rather than "Operate power saw to cut framing timbers" and "Inspect records" rather than "Inspect records for completeness and accuracy". Qualifiers are acceptable if necessary for clarification.

5.2.6.4.3.5. Avoid task statements that include multiple objects. Example: "Check the fire detection system" rather than "Check the fire detection, extinguishing, and overheat warning systems".

5.2.6.4.3.6. Course developers may combine closely related or similar tasks when developing course objectives.

5.2.6.5. When a subject is complex and includes information that is not required for the AFS, identify which part of the subject is required. Subject knowledge statements identify fundamental and theoretical knowledge required for job performance, such as pneumatic principles or principles of accounting.

5.2.6.5.1. Subject knowledge statements do not include action verbs unless they are necessary to more specifically describe the knowledge requirement. If an action verb is necessary, use only one per statement.

5.2.6.5.2. Avoid ambiguous knowledge statements. Use "Theory of credit" rather than "Be familiar with the theory of credit."

5.2.6.5.3. Avoid multiple subjects or objects. Use "Theory of credit" rather than "Theory of debit and credit."

5.2.6.6. Assign proficiency code levels (unless using behavioral format STS) in the appropriate STS column 4 subcolumns to establish resident course and CDC training

requirements. Do not assign codes to headings. Use OAR data, SME and training specialist job knowledge, MAJCOM, CDC writer, and AFCDA representative input, and available resource knowledge to establish requirements.

5.2.6.6.1. When course resource constraints prevent the formal course or CDC from attaining the established training requirement, use dual coding to indicate the current training capability. Explain the dual codes in the front of the STS.

5.2.6.6.1.1. Dual codes indicate the established requirement followed by a slash (/) and proficiency level that will be attained under existing constraints. Example: 2b/X (unfunded) or 2b/a (partially funded). If a task or knowledge statement will not be supported by a formal course or CDC, use a dash (-) in place of a proficiency level.

5.2.6.6.1.2. Unfunded training requirements written in behavioral statement format have "(unfunded)" immediately after the statement. When partially funded, include a partial training behavioral statement, enclosed in parentheses, immediately after the full requirement statement.

5.2.6.6.2. Codes in the CDC columns indicate CDC-provided knowledge to support upgrade training. In some cases, the CDC cannot provide all career knowledge required for upgrade. See paragraph 13.1.5 for criteria to establish a CDC requirement. SKT development support is not justification to establish a CDC requirement.

5.2.6.6.2.1. CDCs provide career knowledge only. Specialized knowledge, such as detailed technical order (TO) procedures, peculiar equipment, or weapons systems, is learned through work experience and OJT.

5.2.6.6.2.2. Do not code an item in the CDC column unless there is an upgrade requirement, or need for review material to support an upgrade requirement. List task knowledge proficiency codes for task statements and subject knowledge codes for knowledge statements.

5.2.6.6.2.3. Individual task or knowledge codes will be realistic and attainable through distance learning education. C-level training is difficult to attain through a paper-based CDC, and may require IMI supplements to achieve the desired results. Funding may be an issue and should be considered before assigning a C-level or higher for CDC requirements. **Note:** When preparing CDC manuscripts for submission to the AFCDA, the CDC writer identifies proficiency codes according to established procedures outlined in the AFCDA *Course Development Management Guide: Standards for Course Development*, Unit 3. The guide can be found on the AFCDA SharePoint web-site under the Bookshelf link.

5.2.6.7. Develop STS in accordance with AFI 36-2201.

5.2.6.8. List training references (TR).

5.2.6.8.1. When a TR applies to all subparagraphs, list it under the major paragraph. There should be a TR for every paragraph and subparagraph.

5.2.6.8.2. Omit government publication dates, but use the most current reference available when forwarding the final STS to the AFCFM.

5.2.6.8.3. Limit commercial or other service publication TRs to those commonly used on the job. Underline such references and provide information on how to order them.

5.2.6.8.4. Confirm commercial and other service publication used as TRs are available from the procurement source or supplying agency. AFCFM authorizes use of commercial and other service publications as TRs.

5.3. Course Training Standard:

5.3.1. **Requirements.** A course training standard (CTS) identifies a specific course's training and proficiency level. The CTS is a contract between AETC and its customers. The CTS is used to identify optional supplemental training requirements, and may also be used to identify officer CFETP mandatory and optional course requirements. Use the TTMS CTS template for new courses and revisions.

5.3.1.1. The 982 TRG may use a combined CTS and CC for Type 4 system courses/specialty training only.

5.3.1.2. The 17 TRG, DoD Fire Academy CTS format will be congruent with National Fire Protection Association (NFPA) standards. CTS items will be major line items from the appropriate NFPA standards.

5.3.1.3. 17 TRG cryptologic courses may use a combination training standard matrix to reflect multiple user training requirements. Procedures for developing this matrix will be outlined in a supplement to this policy.

5.3.1.4. Other format variations are permitted with OPR prior approval.

5.3.2. **Format.** Use the TTMS CTS template. If TTMS is not available, develop a qualitative requirements list according to examples in Attachment 7 and Attachment 8. Attachment 7 is a proficiency code CTS sample. Attachment 8 is a behavioral CTS sample. Begin numbering on the second page and number pages consecutively. **Note:** 982 TRG will follow local procedures for developing and revising the combined CC/CTS.

5.3.3. Cover Page:

5.3.3.1. Format heading as shown in Attachment 7 and Attachment 8. All CTS headings are flush left. The CTS number is the course number, and it is flush right. Type the PDS code in parentheses on the line below the CTS number. Enter the CTS publication date (unabbreviated month and year) on the line below the PDS code.

5.3.3.2. Center the exact course title, all upper case, two spaces below the heading.

5.3.3.3. See Attachment 7 and Attachment 8 for appropriate cover page information and placement of the TRG commander's signature element. Do not number the cover page. **Note:** For common training courses, identify all "feeder" courses.

5.3.3.4. **Customer Service Information Line (CSIL).** Include the appropriate training evaluation branch DSN on the first page. The training evaluation branch e-mail address may also be included.

5.3.4. Qualitative Requirements Instructions:

5.3.4.1. Generally, the proficiency code key is the second page of the document. A CTS in the behavioral format will not include a proficiency code key, instead use the behavioral statement coding system in AFI 36-2201.

5.3.4.2. Prepare CTS to describe course content.

5.3.4.2.1. Base tasks and knowledge statements on an analysis of available source data, such as applicable AFS description analysis, available OAR data, SME specialty knowledge, and/or MAJCOM requirements.

5.3.4.2.2. Tasks, knowledge items, and proficiency levels will prescribe only training available in the course.

5.3.4.2.3. Course content will not duplicate PME or ancillary training tasks and knowledge (except BMT).

5.3.4.2.4. Do not duplicate the level of training provided in other training courses.

5.3.4.2.5. Coordinate CTS changes that affect training through HQ AETC/A3T TPM for AFCFM or equivalent approval.

5.3.4.2.6. Document CTS changes that affect training by republishing the CTS and generating an ATP/CTP if appropriate.

5.3.4.2.7. Write-in changes that do not alter course content or impact resources may be made to CTS. TRGs will submit a memorandum signed by the TM through the TRG to HQ AETC/A3T and HQ AETC/A1MRT, stating the reason for the change. Include a copy of the coordination with local manpower, logistics, and maintenance organizations verifying the proposed changes do not impact resources (see paragraph 4.3.3.) and the corrected CTS as attachments to the memorandum.

5.3.4.2.8. TM will document editorial changes that do not alter course content in the record set and the TTMS database, as applicable.

5.3.4.3. Describe task and knowledge training requirements in the same manner as in paragraphs 5.2.6.4. through 5.2.6.6.1.2. to develop CTS elements.

5.3.4.4. Use proficiency code key scale values (unless using behavioral statements), to specify the capabilities graduates will have after training. When lack of resources affects training, dual-code to show established training requirements versus present training capability. When dual-coding, explain the codes on the cover page. Training references may be used when advantageous.

5.3.4.5. The following guidelines apply to behavioral statement CTSs:

5.3.4.5.1. Describe observable, measurable skills and knowledge gained from training. Clearly state what graduates will be able to do. If necessary, include conditions and/or standards to clarify the behavior.

5.3.4.5.2. Each statement should establish a training requirement using verbs that describe observable and measurable student behavior. Limit verbs to one action per statement unless actions are closely related, such as “remove and replace.” Avoid

vague, ambiguous words such as "know" or "understand," and meaningless qualifiers such as "when appropriate" or "as necessary."

5.3.4.6. Include a summary of changes at the end of each CTS Attachment 1.

Chapter 6

TRAINING OBJECTIVES

6.1. Description. An objective is a precise statement of the learned behavior (skills, knowledge, or attitudes) a student is expected to demonstrate, the condition under which the behavior is to be exhibited, and the standard of acceptable performance upon completion of training. Performance-based objectives are preferred for teaching skills in technical training courses. The behavior and conditions found in performance objectives duplicate or simulate as close as possible those found in the job environment. Knowledge-based objectives may be used to train theory and subject knowledge. Affective objectives may be used to develop student attitudes in a desired direction.

6.1.1. Objectives are normally developed to measure individual behavior, i.e. “Each student will...” Objectives may be developed using a team concept when the task cannot be performed by a single individual. When using team objectives, ensure students rotate so each student performs all parts of the task. For example, a student cannot pass the objective by just reading the technical order procedures while another student performs the task.

6.1.2. Training objectives consist of three parts: a condition, a behavior, and a standard. Objectives may use implied conditions and standards.

6.1.2.1. The **condition** identifies the situation under which a student is expected to demonstrate a behavior. A properly prepared objective clearly states the limits or conditions of student performance. Conditions under which the training is performed should be the same as the actual job conditions, if possible. Condition statements can be derived from the task analysis.

6.1.2.2. The **behavior** is defined as a skill, knowledge, or attitude that is observable and measurable. The behavior must be written in measurable, observable terms so student performance can be objectively evaluated. Use observable and measurable action verbs to reduce ambiguity. Behaviors must satisfy training standard job knowledge and performance requirements.

6.1.2.3. The **standard** defines the criteria for acceptable performance by the student. It is stated in terms such as completeness, accuracy requirements, time constraints, performance rates, and qualitative requirements. The standard identifies the proficiency students must achieve when performing the behavior under the specified conditions. Standards of performance are often specified in standard publications such as technical orders, instructions, manuals and handbooks. However, if no standards are available, set standards based on other sources such as experience or similar tasks.

6.2. Objective hierarchy. Objective hierarchy identifies the relationship between objectives such as which objectives are prerequisite to another objective. For example, learning how to use tools and jacks would be prerequisite to changing a tire. The sequence and lessons within a course should be based on the prerequisite relationship among the objectives. The most obvious sequence follows the order from simple to complex or from general to specific.

6.3. For additional guidance on objectives , see AFH 36-2235, Volume 9, *Information for Designers of Instructional Systems, Application to Technical Training*; AFMAN 36-2234, *Instructional System Development*; and AFMAN 36-2236, *Guidebook for Air Force Instructors*.

6.4. Developing Objectives

6.4.1. Use TTMS ICIS to build unclassified course objectives.

6.4.2. Cover each training standard item with one or more objectives. Collectively, objectives will satisfy all training standard requirements.

6.4.3. Base objectives on training standard task and knowledge statements. Reference each objective to the training standard item(s) it supports. Due to the inherent difficulty of measuring multiple tasks or subjects within one objective, use discretion when referencing multiple training standard items to a single objective.

6.4.4. Define conditions that match job conditions as closely as possible. Ensure the conditions are realistic. Identify what the student may use to achieve the required behavior. Objectives written without conditions imply “without reference” or “from memory.”

6.4.5. Identify the behavior for performance-based objectives using the training standard task statement to ensure the objective reflects on-the-job behaviors. Limit action verbs to one per objective unless actions are normally concurrent (such as “remove and reinstall”).

6.4.5.1. For knowledge-based objectives, identify behaviors using action verbs that are observable and measurable. Don't use behaviors such as "know," "understand," etc.

6.4.5.2. Do not use the measurement device as the object of an action verb.

6.4.5.3. When a behavioral statement CTS is the training standard, objective behaviors will mirror the CTS behaviors.

6.4.5.4. If course objectives are written in the affective domain, use relative verbs to describe the intended behavior or change in attitude. Affective verbs do not describe observable, measurable actions for behavioral objectives. Affective verbs describe a level of commitment to an attitude, value, or belief. Affective behaviors can only be measured by observing changes in behavior over time. Some affective verbs are: accept, recognize, feel, sense, capture, experience, attend, perceive, allow, display, clarify, internalize, etc.

6.4.6. Standards define the proficiency level students must attain to pass the objective. Use a standard that meets job performance requirements, if possible.

6.4.6.1. Standards must be clear, realistic, understood by everyone, and must accurately measure student achievement of the objective. If the objective finalizes a training standard element, the standard ensures students have met the required proficiency.

6.4.6.2. The objective standard may be implied. For example, "identify traffic signs" has an implied standard of 100%.

6.4.6.3. Performance objective standards may indicate a specific time, degree of accuracy, required quality, or reference “in accordance with” a specified TO, instruction, manual, handbook, or checklist. Performance objectives written without a defined

standard imply performance must be without error or assistance and with 100 percent accuracy (go/no-go).

6.4.6.4. Knowledge objectives may imply standards where sampling written tests are used to measure the objective. If a progress check is used to measure knowledge objectives, the objective standard will reflect the standard required to successfully pass the progress check and the objective must be closed out with the progress check. If a sampling written test is the only measurement to be used, the implied standard will be the minimum passing score established for the test.

Chapter 7

STUDENT MEASUREMENT

7.1. General. Student measurement consists of both informal and formal measurement devices designed to assess the student's attainment of the objective.

7.1.1. Formal measurement/assessment is required in all courses to assess task knowledge, subject knowledge, and task performance objectives. Formal measurement/assessment includes progress checks, performance tests, and written tests.

7.1.1.1. If progress checks are used to measure all objectives, a written test is not required. Tests should only be used if there is a valid need for additional measurement beyond the progress check. Use performance tests to measure performance objectives where progress checks do not provide an adequate degree of quality control or record of performance.

7.1.1.2. When measuring learning in the affective domain, alternative measurement/assessment may be developed. These include, but are not limited to, team building activities, case studies, simulations, open-ended question assessments, and observation/assessment over time.

7.1.1.3. Informal measurement is not required but may be used to assess day-to-day learning and serve as an early indicator of students who need individual assistance. Informal measurement consists of appraisals, quizzes, and other similar devices. There is no requirement to record results of informal measurement.

7.1.2. Each student must successfully pass all formal measurement devices to graduate. An exception would be a measurement not taken because of a documented training deficiency. Instructors may grant international students additional time to complete measurement devices when language difficulties dictate.

7.1.3. Measurement devices will measure the behavior of training objectives.

7.1.3.1. Measure both task knowledge and task performance portions of performance objectives. Develop a separate measurement for the task knowledge portion of performance objectives when task knowledge measurement is not readily apparent in the successful achievement of a performance test or performance progress check.

7.1.3.2. Subject-matter qualified instructors must certify that students achieve the objectives tested.

7.1.4. Write measurement items using the guidelines in AFH 36-2235, Volume 12, *Information for Designers of Instructional Systems - Test and Measurement Handbook*, AFMAN 36-2234; and AFMAN 36-2236.

7.1.5. Computer-based measurement and analysis is encouraged. If computer-based measurement is used, units must use the TTMS Automated Testing function and alternate methodologies should be available. **Exception:** DoD Fire Academy at Goodfellow AFB TX is authorized to use the Air Force Civil Engineer Center (AFCEC) directed CerTest Testing Platform. Information assurance training at Keesler AFB MS is authorized to use DoD

approved certification tests listed in DoD 8570.01-M, *Information Assurance Workforce Improvement Program*.

7.1.6. Ensure measurement devices include a foreign disclosure disclaimer if foreign military/international students are to be trained. Examples: (1) “This document contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.” (2) “Foreign Disclosure: The information in this document is not restricted and may be disclosed to international students. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.”

7.2. Minimum Passing Requirements:

7.2.1. Minimum passing score for performance progress checks and performance tests will be the same as the objective standard. Identify the minimum passing score in the standardized instructions given to students.

7.2.2. Grade performance progress checks and performance tests as satisfactory (S), unsatisfactory (U), or using a percentage score. Percentage scores will be 70 percent or higher.

7.2.3. Minimum passing score for the knowledge portion of performance progress checks, knowledge progress checks, and written tests will be 70 percent or higher.

7.2.4. The minimum passing score may be expressed as either a percentage or a ratio of whole numbers.

7.2.4.1. If a ratio is used, it must meet or exceed 70 percent without rounding. For example, 15 of 21 correct is 71.428 percent, exceeding 70 percent. The grade posted in the student record will be rounded to the nearest whole number. Decimals of .5 and greater are rounded up. In the example above, a score of 71 percent would be posted in the student record.

7.2.4.2. If a student fails a written measurement, retests and passes, the student receives the minimum passing score for the measurement. However, all scores should be documented because they might provide additional insight into student motivation or ability to study and learn.

7.3. Progress Checks:

7.3.1. Progress checks are formal measurement devices administered by the instructor during the classroom or laboratory instruction time to assess the student's accomplishment of knowledge or performance objectives. These checks provide immediate feedback to the student and instructor.

7.3.2. A subject-matter qualified instructor determines if the student has successfully accomplished the objective and bases that judgment on the behavior observed and the standard stated in the objective. The instructor evaluates student performance using the applicable checklist or TO.

7.3.3. Ensure the progress check measures all training standard items when a single objective covers multiple TS items.

7.3.4. Develop progress checklists for each objective assessed by a progress check. Reference the appropriate TO when operational aircraft and equipment are used for training. The appropriate TO must be used during the progress check. Knowledge progress checks may be administered using computer-based measurement. If computer-based measurement is used, alternate methodologies should be available.

7.3.4.1. Develop specific instructions for the instructor and student that detail the measurement process to include the meaning of an instructor assist, if used, and identify the minimum passing standard.

7.3.4.2. Alternate versions of progress checks are not required. However, alternate versions of knowledge progress checks are encouraged.

7.3.5. Progress checks will be afforded the same security and control as tests when prior knowledge of the progress check will afford the student an advantage. Progress checks that cannot be compromised do not need to be controlled.

7.3.6. Instructors may return workbooks, exercises, or other material used during progress checks to the students after the material has been graded and critiqued, if such material does not compromise the progress check.

7.3.7. Actual accomplishment of progress checks may be delayed until the end of a unit of instruction (or week of training (WOT) for BMT), to allow a check of more than one objective at a time. Accomplishment of the performance progress checks being used for certification in Mission Ready Airmen (MRA) courses may be delayed to the next block of instruction (or WOT for BMT) to enhance student retention.

7.3.8. Record unsatisfactory completion of objectives in TTMS student management in accordance with AETCI 36-2215, *Technical and Basic Military Training Administration*.

7.3.9. When TTMS is unavailable, results may be maintained on AETC Form 667, *Criterion Checklist*; AETC Form 667A, *Criterion Checklist*; AETC Form 98, *Student Progress Checklist*; or a computer-generated checklist. Maintain results of the checklist during the validation phase of training to permit analysis and validation of the checklist.

7.4. Written Tests:

7.4.1. Written tests are designed to evaluate student task and subject knowledge.

7.4.1.1. Written tests sample each task knowledge objective, subject knowledge objective, and the knowledge components of task performance objectives, as appropriate. Many concept and rule-using type performances may be tested with written tests. For instance, many problem-solving skills involving the use of scientific principles can be observed from written tests. Written tests may be computer-based or paper-based.

7.4.1.2. When students successfully achieve the minimum overall passing score on a written test, it provides an acceptable level of confidence that they have attained the required knowledge and achieved the individual objectives.

7.4.1.3. Written tests may be used to aid knowledge retention and act as a quality control device. When progress checks are used to measure each objective, written tests should only be used if there is a valid need for additional measurement beyond the progress check.

7.4.2. Written tests are administered as a separate unit of instruction in the course under controlled conditions after the teaching-learning activity has been completed.

7.4.3. Written tests are not limited to selection type items. They may be essay or supply type, such as fill in the blank.

7.4.4. The difficulty, complexity, criticality, time, and scope of behavior specified by the objectives are used to determine the number of test items required to cover each objective. Time allotted for the testing period also impacts the number of test items. **Note:** When a single objective finalizes multiple training standard items, ensure the number of questions is sufficient to assess student attainment of all training standard items.

7.4.5. Use technical data when required by the objective. Use of technical data is not required for a written test unless it is necessarily part of the behavior being measured.

7.4.6. Develop enough test versions (a minimum of two) for each measurement point to provide alternate tests in the event of a test compromise or test failure. It is not necessary to maintain alternate test versions if the course uses randomly generated computer tests.

7.4.6.1. Randomly rotate test versions to ensure each is administered as equally as possible.

7.4.6.2. All test versions will have the same number of test items per objective. The passing standard and number of test items will be the same for alternate test versions.

7.4.6.3. Avoid duplicate test items if possible. If circumstances limit the variety of test items supporting an objective, reword items, resequence answers, or scramble items on the alternate version to deter test compromise.

7.4.6.4. Develop standardized instructions for the examiner and examinee.

7.4.6.5. Written tests do not have to be dated after the POI. Simply annotate the master copy of the test to indicate the POI it supports.

7.4.7. Maintain a master copy of each test, either electronic or paper-based, to identify the correct answers, show POI objective correlation to each test item, and identify the approved corrections and changes made in the test. **Note:** Reasons for change are documented on AETC Form 668, *Test Data*; or a test change document while actual changes are annotated on the test master copy.

7.4.8. For ease of scoring paper-based tests, course personnel may use AETC Form 26, *Standard Answer Sheet (50 Items)* and AETC Form 26A, *Standard Answer Sheet (100 Items)*; or other suitable answer sheets.

7.4.9. Record student grades in TTMS Student Management or on the AETC Form 156, *Student Training Report*; or AETC Form 325, *Student Accounting and Attendance Record*, in accordance with AETCI 36-2215.

7.5. Performance Tests:

7.5.1. Performance tests are designed to evaluate student hands-on skills required by performance objectives. Performance tests should only be used if there is a valid need for additional measurement beyond the progress check or progress checks do not provide an adequate degree of quality control or record of performance.

7.5.2. A performance test is administered as a separate unit of instruction under controlled conditions after the teaching-learning activity has been completed. Performance tests often require actual equipment or an operational mock-up of the equipment. Computer-based simulations or other virtual training methods may be used for performance testing, as appropriate.

7.5.3. Use technical data when specified as a condition in the objective.

7.5.4. Develop standardized instructions for the examiner and examinee to use in administering and critiquing the performance test. Include the performance test requirements and minimum student grade requirements on the AETC Form 98, *Student Progress Checklist* or a locally approved checklist.

7.5.5. Individually inform each student of his or her grade and critique the student's performance as soon as practical after test administration. Record grades in TTMS or on AETC Form 156, or AETC Form 325, if TTMS is not available.

7.5.6. Task certification (when required by the career field) in formal courses may be performed by the instructor when students attain performance standards defined in AFI 36-2201. Training records will be documented according to AFI 36-2201, Chapter 6.

7.5.6.1. Only subject-matter qualified instructors may initial CFETPs or electronic equivalent, and will include "AETC Instructor" after their names in the identification block of the students' CFETP Part II or equivalent.

7.5.6.2. Upon course completion, the CFETP or electronic equivalent is provided to the student's gaining organization. This may be accomplished by mail, be hand-carried by the student, or sent electronically. **Note:** Not applicable to firefighting training.

7.5.7. Administer a performance recheck only when a special requirement has been identified in the training standard or when separate agency certification is required (such as typing or coding speed).

7.6. Group Measurement:

7.6.1. Ensure objectives that require group, team, or flight performance specify in the conditions that a group, team, or flight performs the behavior.

7.6.2. Rate each group or team member's performance and participation. Rotate each member of a group or team to different positions during the performance test or progress check to ensure they perform and are assessed on all parts of the task.

7.6.3. Evaluate students while they are actively performing the tasks associated with the objective. Do not assume success merely by observing the student reading a procedural document.

7.6.4. Inform each trainee of his or her grade and critique trainee performance as soon as practical after measurement administration.

7.7. Written Measurement Feedback:

7.7.1. Individually inform students of their grades as soon as practical after administering a written test. In BMT, trainees receive their scores after the test feedback.

7.7.2. Temporarily return scored answer sheets and copies of the test to students for their review during the feedback process (except video-teletraining, computer-based instruction, and computer-based testing). In BMT, the feedback will be accomplished using the test booklets only.

7.7.3. Review all test questions. Make students aware of the answers to missed questions and clarify misunderstandings to enhance learning. Obtain students' opinions if questions were clear and understandable and why questions were missed so corrective actions may be taken, if appropriate.

7.7.4. For Type 6 courses requiring measurement, feedback is managed by the designated test site monitor. The test site monitor may refer students to the appropriate TRS for additional feedback.

7.8. Written Test Analysis:

7.8.1. The goal of written test analysis is to determine if each test item effectively and objectively measures the degree of student achievement required in the specific learning objective. Each test item must meet the necessary standards of difficulty, reliability, and validity.

7.8.2. After each test administration, record test results on AETC Form 668, or in a computer-generated test analysis system. Examiners make appropriate comments on AETC Form 668 or other applicable data collection documents, to include computer forms of documentation. Alternate test analysis methods may be used for randomly generated computer tests.

7.8.3. Conduct a high-miss test question analysis, at a minimum, after each test administration. Normally, a test item is considered high-miss when 50 percent or more of the students in a given test administration miss the item. Identify high miss trends and problem questions, and revise questions or instructions as necessary. Document the review and actions taken.

7.8.4. If high-miss or poorly performing items based on test analysis become evident after a written test has been validated, review the training activities associated with these items to determine the cause.

7.8.5. Conduct a comprehensive statistical item analysis of the test results for each course written test at least annually. Base the frequency of the review cycle on student flow. Analyze the high-miss items/areas of difficulty to determine if any corrective action is required. Refer to AFMAN 36-2236 for more information on analysis methods, application, and interpretation. Annual test reviews may be conducted concurrently with the periodic course review. Document the review and actions taken.

7.9. Measurement Plan:

7.9.1. A course measurement plan ensures adequate assessment of all course objectives. Use the TTMS ICIS measurement plan template to develop measurement plans. For Type 4 courses, the POI meets the requirements for the measurement plan.

7.9.2. The measurement plan includes the following information:

7.9.2.1. POI objectives correlated to training standard items and associated proficiency codes.

7.9.2.2. Type of measurement (PC - progress check, W - written test, and P - performance test) for each objective.

7.9.2.3. Written test question numbers correlated to objectives.

7.9.2.4. Point at which training standard element is closed out.

7.9.2.5. Maintain measurement plan in TTMS ICIS.

7.10. Measurement Safeguards/Security

7.10.1. Employ appropriate safeguards including those applicable to computer systems to prevent compromise of measurement materials.

7.10.2. Administer all measurement, including computer-based or online measurement, in a controlled, proctored environment.

7.10.3. At a minimum, configure computer-based and online measurement systems to:

7.10.3.1. Block predator computer programs from running during formal online measurement.

7.10.3.2. Prevent the use of shortcut keystrokes to accomplish bypassing measurement security.

7.10.3.3. Prevent viewing of the hypertext markup language (html) coding associated with web pages.

7.10.3.4. Ensure additional software programs, such as Web X, are not running in the background during online measurement.

7.10.3.5. Assign proper security profiles and roles for all levels of users.

7.10.3.6. Limit administrative privileges on servers.

7.10.3.7. Support secure deployment of testing software with separate web servers, application servers, and database servers.

7.10.3.8. Prevent measurement materials ~~tests~~ from being improperly posted to shared drives.

7.10.3.9. Ensure identification and authorization of all users.

Chapter 8

COURSE CHARTS

8.1. General. The course chart provides an executive summary of training, outlining the general structure and content of a course. It also provides course parameters and other course data to be used for course planning and control. Use the TTMS ICIS course chart template or, if TTMS is not available, AETC Form 449, *Course Chart*. The 982 TRG may use a combined course chart and course training standard for Type 4 courses.

8.1.1. An approved course chart is required for Types 2, 3, 4, 6, 7, 8, C, A, W, and M courses. Type 1 should be handled case-by-case. Refer to Attachment 9 for an example AETC Form 449, *Course Chart*.

8.2. Training Day

8.2.1. The standard training day includes 8 hours of academic instruction divided into eight 50-minute periods with 10 minutes of break time and 1 hour for mealtime (400 minutes of instruction). It is acceptable to continue training beyond 50 minutes and accumulate break time if doing so enhances the learning activity. Use the standard training day when developing all technical training courses, except BMT and Type 6 DL.

8.2.2. The compressed work schedule (CWS) standard training day is an 8-hour training day that includes 445 minutes of instruction with 35 minutes of break time and 1 hour for mealtime. A total of 4,000 minutes of instruction must be provided during a 9-day training period.

8.2.3. The standard training day may include at least 6 hours of classroom/lab time and up to 2 hours of supervised or directed study.

8.2.3.1. Supervised study is time dedicated to student achievement of course objectives using self-study instructional materials. Specific objectives must be assigned and measured. Material covered by supervised study must not be retaught. A subject-matter qualified instructor must be present and may monitor more than one group of students.

8.2.3.2. Directed study is time dedicated to student achievement of course objectives using self-study instructional materials. Specific objectives must be assigned and measured. Material covered by directed study must not be retaught. An instructor is not required to provide direct supervision to students for this period. No instructor authorizations are earned for directed study hours.

8.2.3.3. Do not confuse directed study or supervised study with special individualized assistance (SIA). See AETCI 36-2215 for SIA guidance.

8.2.4. TRG commanders may approve modifications to the standard training day necessary to train unique course objectives on a case-by-case basis. Examples include multiple shift operations, travel time to and from training areas, performance objectives that cannot be completed within the standard training day, capstone performance exercises, and field exercises.

8.2.4.1. TRG commanders may approve modifications to accommodate field trips. Field trips will not exceed 5 days total per course.

8.2.4.2. Modified training days must include at least 8 hours of academic instruction. **Exception:** For three-shift operations, second and third shift may include no less than 7 hours of academic instruction and no less than 30 minutes for mealtime.

8.2.4.3. Document rationale for modification and approval in the Remarks section of AETC Form 449.

8.2.5. Day-to-day deviations for events such as appointments, functions, or unforeseen course interruptions are approved by the training squadron, detachment, or operating location commander or chief. A few examples of situations that may require a deviation are severe weather, illness, and equipment and/or aircraft malfunction. Keep deviations to the training day minimized. Training time lost due to these deviations must be made up or training deficiencies issued. Except for weather or unexpected emergencies, do not extend the course length or change the class graduation date.

8.2.6. Courses involving TDY instructors or where the majority of students are in a TDY status will be accomplished on a standard training day.

8.3. Training Shifts

8.3.1. Refer to Table 8.1 to identify training shift codes and shift times.

Table 8.1. Shift Time Identification Codes.

I T E M	A	B
	Code	Schedule
1	S	Morning shift, 0600-1500
2	T	Afternoon shift, 1500-2400
3	R	Regular shift: Varies as long as 8 hours of training is provided
4	A	0600-1200 plus 2 hours of supervised or directed study
5	B	1200-1800 plus 2 hours of supervised or directed study
6	C	1800-2400 plus 2 hours of supervised or directed study
7	D	2400-0600 plus 2 hours of supervised or directed study
8	E	Nonstandard training day: 24-hour day or other variation as required

8.4. Standard Training Parameters

8.4.1. Course charts will reflect the following standard training parameters:

8.4.1.1. **Course Orientation.** Should not exceed 2 hours per course.

8.4.1.1.1. Type 6 courses usually require less time. **Note:** Type 6 courses orientation will include information in paragraphs 9.2.5.1, 9.2.5.2, 9.2.5.4, and any others as applicable.

8.4.1.1.2. In BMT, the immediate incoming briefing serves as the course orientation and introduction. The standard topics for a course orientation are woven throughout a series of briefings in the BMT curriculum.

8.4.1.2. **Course Feedback and Graduation.** Should not exceed 1.5 hours per course.

8.4.1.2.1. Course feedback surveys are administered shortly before departure in BMT. In BMT, the graduation parade serves as the course graduation.

8.4.1.2.2. Type 6 courses may require significantly less time because there is no graduation ceremony upon course completion.

8.4.1.3. **Written Measurement and Feedback (Optional).** Should not exceed 1.5 hours per test.

8.4.1.3.1. If extra time is needed due to the amount and complexity of the testable material, do not exceed 2.5 hours per test.

8.4.1.3.2. Document rationale for additional testing time in the Remarks section of the AETC Form 449.

8.4.1.3.3. Typically, a written test should cover a minimum of 32-40 course hours. However, they may be as infrequent as 80-120 course hours or greater. In any case, test frequency and content coverage must be consistent with sound educational practice. **Note:** Time allotted for progress checks is included in the objective times and will not be listed as a separate unit in the course chart.

8.4.1.4. **Outprocessing Appointments (as required).** Should not exceed 2 hours per course. If extra time is needed, document rationale for additional time in the Remarks section of the AETC Form 449. In BMT, picking up orders serves as the trainee's outprocessing appointment. **Note:** This time does not earn manpower resources.

8.4.1.5. **Traffic Safety Education.** Should not exceed 2 hours per course, when required by the TRW or TRG. **Note:** This time does not earn manpower resources.

8.4.2. Commander's call or graduate evaluation information will not be included as course chart time.

8.4.3. The last training day must be at least 5 hours in length (except in Type 6 and self-paced courses) when the course is over 20 academic days in length.

8.5. Developing Course Charts:

8.5.1. General

8.5.1.1. When using TTMS ICIS, the information on the course chart is populated from data fields input during the ISD process. If TTMS ICIS is not available, the information is entered on the AETC Form 449.

8.5.1.2. Show supervised and directed study hours separately from C/L hours on the TTMS course chart template or AETC Form 449.

8.5.1.3. Do not include PME or ancillary training as part of course time unless a waiver has been granted by HQ USAF/AIDL.

8.5.1.4. Include the following information in the Remarks section of the TTMS ICIS course chart template or the AETC Form 449:

8.5.1.5. Effective date with class number.

8.5.1.6. List of other course charts that apply during a phase-out or validation period.

8.5.1.7. When applicable, document rationale for modification to the standard training day and approval by the TRG commander.

8.5.1.8. When applicable, document rationale for additional testing and/or outprocessing appointment time.

8.5.1.9. The name, office symbol, and phone number of the TM responsible for the accuracy of the information on the course chart.

8.5.1.10. When applicable, document approval to use motivational training included in the remarks section. **Note:** Adding motivational training to or removing motivational training from a course will require a new course chart and an ATP.

8.5.1.11. All piggyback courses.

8.5.1.12. For common training courses, show all “feeder” courses.

8.5.1.13. Foreign disclosure disclaimer if foreign military/international students are to be trained. Examples: (1) “This course contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.” (2) “Foreign Disclosure: The information in this course is not restricted and may be disclosed to international students. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.”

8.5.1.14. Contingency delivery plan for interactive video teletraining (IVT) courses or web-based courses. Identify alternative delivery methods in the event of satellite or equipment/network failure.

8.5.2. **Table 1 – Major Items of Equipment.** Enter “Refer to TTMS equipment list.” or “Refer to AETC Form 120.”, as appropriate.

8.5.3. **Table 2 – Training Content.** Table 2 identifies the course content by block. Each block entry identifies the block title, total technical training hours, individual lesson/unit titles and hours, non-technical training hours, and total block and course hours. Prepare Table 2 on the back of AETC Form 449 or on plain bond paper if TTMS is not available. See Attachment 9 for an example.

8.5.4. Mark classified course charts, classified block and unit titles, and individual segments and paragraphs with the appropriate security classification in accordance with DoDM 5200.01, *DoD Information Security Program: Marking Classified Information*, and local special security office procedures. When titles of classified units of instruction are unclassified, add a statement in the remarks section or in Table 2 indicating the titles are unclassified and are marked only to reflect classification of course content.

8.5.5. Write-in changes that do not alter course content or impact resources may be made to course charts. TRGs will submit a memorandum signed by the TM through the TRG to HQ AETC/A3T and HQ AETC/A1MRT, stating the reason for the change. Include a copy of the coordination with local manpower, logistics, and maintenance organizations verifying the proposed changes do not impact resources (see paragraph 4.3.) and the corrected course chart as attachments to the memorandum.

8.6. Wartime Courses. Wartime courses will be developed as separate builds with wartime course numbers in TTMS ICIS on an as-needed basis when there are different tasks and/or equipment to be trained during wartime.

Chapter 9

PLANS OF INSTRUCTION (POI) AND LESSON PLANS (LP)

9.1. POI Purpose. The POI is a course control document, organized by blocks and units in the preferred sequence of instruction. It lists the course objectives, necessary support materials and guidance, and training time allotted for each block, unit, and objective. Actual instruction times may vary due to class size or different student ability. When separated into units of instruction, the POI becomes Part I of the lesson plan.

9.2. POI Development:

9.2.1. Prepare a POI for all formal courses developed and administered by AETC. When using TTMS ICIS, the information on the POI is populated from data fields input during the ISD process. If TTMS ICIS is not available, the information is entered on the AETC Form 133, *Plan of Instruction/Lesson Plan - Part I*.

9.2.2. Ensure the POI front cover includes a foreign disclosure disclaimer if foreign military/international students are to be trained. Examples: (1) "This course contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information." (2) "Foreign Disclosure: The information in this course is not restricted and may be disclosed to international students. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information."

9.2.3. Include one or more objectives in each instructional unit/lesson or module. Supporting teaching steps are optional.

9.2.3.1. Reference each objective to the training standard element(s) supported. Underline the element at the point where students attain the specified training standard proficiency level/behavior.

9.2.3.2. An objective using previously taught skills or knowledge will not refer to that training standard element unless accomplishing the objective results in a planned proficiency increase.

9.2.3.3. Do not underline (finalize) a training standard element more than once, or use an underlined reference again in the planned sequence of instruction. **Note:** This does not prohibit future lesson use of knowledge and skills learned and measured in previous units, blocks or WOT.

9.2.3.4. Document the POI to training standard correlation in the measurement plan to show which objectives support and satisfy each training standard element.

9.2.4. Indicate the type of student measurement for each objective: PC - progress check; P - performance test; W - written test.

9.2.5. Identify support materials and guidance for each instruction unit or module. Support materials and guidance includes student instructional materials, audiovisual aids, training equipment, training methods, MIR, and instructional guidance.

9.2.5.1. **Student Instructional Materials.** List all instructional materials necessary to support the objectives, such as study guides, workbooks, handouts, standard publications, commercial publications, and technical orders.

9.2.5.2. **Audiovisual Aids.** List all audiovisual aids necessary to support the objectives, such as computer-based multimedia presentations, video, movies, vignettes, graphics, and slides.

9.2.5.3. **Training Equipment.** List all equipment necessary to train the objective.

9.2.5.4. **Training Methods.** Identify the training method, such as lecture, lecture/discussion, demonstration, performance, directed study, or supervised study, used to present each objective and the time allotted to each method.

9.2.5.5. **Multiple Instructor Requirement (MIR).** Identify the number and utilization of multiple instructors required to meet the objective(s). Example: Safety/Supervision (3).

9.2.5.5.1. Only qualified personnel will be used as primary instructors or to certify student achievement of course objectives. An individual who has not completed an instructor training course or is not qualified in the specific block of instruction may be used to satisfy a safety MIR. Do not use students to fulfill the MIR. **Exception:** For 982 TRG Type 3 and Type 4 courses, task certified personnel may be used to support safety MIR or as team members to support team training objectives.

9.2.5.5.2. If MIR cannot be met, the training flight/detachment commander or chief may waive the POI MIR requirement on a class-by-class basis. **Note:** Training flight/detachment commanders/chiefs must ensure all assigned instructors are being utilized in their primary duty prior to granting a waiver. Resequence objectives, where practical, to avoid MIR waiver. MIR for safety cannot be waived.

9.2.5.5.3. If MIR is waived, additional training time necessary to meet the training objective must be documented.

9.2.5.5.4. If MIR for safety cannot be met or additional training time is not practical, conduct training to the highest proficiency practical and document a training deficiency. For example, if equipment is not available to train an objective to the "2b" task performance proficiency, train to the "b" proficiency and document a training deficiency.

9.2.5.5.5. Document the waiver on a memorandum, identifying the class and objectives impacted, the rationale for the waiver, and the action taken to satisfy the objective or document a training deficiency. Include justification for the action taken or training deficiency. Forward an information copy of the waiver memorandum through the training manager to the squadron commander, the group commander, 2 AF, and HQ AETC/A3T.

9.2.5.5.6. Maintain MIR waiver memorandums for 3 years.

9.2.5.6. **Instructional Guidance.** Instructional guidance:

9.2.5.6.1. Conveys the course designer's intent on how to conduct the teaching-learning activity in each objective to the instructor. Guidance should contain enough

support information to enable new instructors to present each objective effectively and efficiently.

9.2.5.6.2. Explains the MIR, how the MIR will be used, the instructor-to-student ratio when using the MIR, and objective hours requiring the MIR.

9.2.5.6.3. Describes how and where to integrate job-oriented safety, environmental issues, and publications awareness, as appropriate.

9.2.5.6.4. Requires instructors to weave in risk management principles, energy conservation, core values, and Air Force doctrine throughout each lesson, as appropriate.

9.2.5.6.5. Describes how and when motivational training may be applied within each unit of instruction and how motivational training ties to specific objectives, if applicable. Lists approved methods, limitations and desired results.

9.2.5.6.6. Describes purpose, content, how, and when field trips will be conducted, if applicable. If the field trip cannot be accomplished, identify how objectives will be met and measured.

9.2.5.6.7. Includes foreign disclosure disclaimer for each lesson, where appropriate. The foreign disclosure disclaimer calls the instructor's attention to lessons containing information that cannot be released without proper authorization. Example: "This lesson contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information."

9.2.6. **Course Orientation.** Include a nonmeasured orientation that covers at least the following:

9.2.6.1. Course overview and administration.

9.2.6.2. Student feedback program.

9.2.6.3. Effective study techniques (airman basic resident and enlisted prerequisite resident courses only).

9.2.6.4. CCAF benefits and credits, if applicable (enlisted courses and officer courses attended by enlisted members).

9.2.6.5. Instructional material types and uses.

9.2.6.6. Training material and resource conservation.

9.2.6.7. Training environment safety (including chemical and/or radiation hazards, when appropriate).

9.2.6.8. Air Force fraud, waste, and abuse prevention and detection.

9.2.6.9. Sexual harassment and assault reporting, professional and unprofessional relationships, trainee abuse and hazing, and academic integrity.

9.2.6.9.1. Ensure the instructional guidance includes the following guidance for this teaching step: Describe required standards of conduct for trainees/students, faculty, and staff. Ensure AETCI 36-2909, *Recruiting, Education, and Training Standards of*

Conduct, is included as part of the student instructional material. Refer to AETCI 36-2909 for examples of professional and unprofessional relationships between trainees/students, faculty, and staff. Encourage trainees/students to follow the chain of command to resolve issues, where practical. If the unprofessional conduct involves someone in the trainee/student's chain of command, inform trainees/students they may go to the next higher level (e.g., instructor supervisor, flight commander/chief, squadron commander, or group commander) or appropriate outside office or agency to report it. Encourage trainees/students to report sexual assault in accordance with AFI 36-6001, *Sexual Assault Prevention and Response (SAPR) Program*. Identify support and investigative agencies, their contact numbers, and hotlines available to students and trainees who need assistance in resolving issues.

9.2.6.9.2. Ensure the Lesson Plan Part II includes the following statement under sexual harassment and assault reporting teaching step: "Victims of sexual harassment and/or sexual assault in training environments are provided confidential access to victim support services. Victims will be afforded the necessary time for recovery and opportunity to make up training missed during the recovery period. Training may be made up through either special individualized assistance (SIA) or washback/recycle. How training will be made up will be determined by the instructor supervisor with the best interests of the student in mind and based on the amount of training that has been missed, complexity of the training, and other relevant factors."

9.2.6.10. Type 6 course orientation includes paragraphs 9.2.5.1, 9.2.5.2, 9.2.5.4, and others if applicable.

9.2.6.11. BMT covers overview and administration information through a series of weekly training briefings and orientations.

9.2.7. Integrate the following topics throughout the POI:

9.2.7.1. **Job-oriented Safety.** Reference AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, technical data, and standard publications.

9.2.7.2. **Environmental Issues.** Emphasize awareness on how job tasks impact the environment, such as water usage, pollution prevention, resource conservation, recycling, etc.

9.2.7.3. **Publications Awareness.** Emphasize the importance of using publications, to include standard publications and technical orders, and that compliance with guidance in these publications is mandatory.

9.2.7.4. **Risk Management (RM).** Weave risk management principles throughout the core curriculum in all courses, where appropriate. Job safety and risk management principles should be tied together. Stress the need to perform a real-time assessment prior to conducting each training activity involving a hazard. Emphasize that all Airmen (students and/or instructors) are empowered to call a "Knock-it-off" or "Time-out" if they have safety concerns or to inform others of a developing hazardous situation. **Note:** Reference AFI 90-802 for further guidance.

9.2.7.4.1. For each teaching step or training activity involving any hazard that could cause mission degradation, injury, illness, or system damage, include RM assessment

worksheet(s) from the training plan or course record set (for courses not requiring training plans, e.g. Type 2) as an attachment to the POI. Use the RM worksheet to assess the activity and include RM reference in instructional guidance. **Note:** Each time the activity is conducted, perform a real-time RM assessment based on current conditions. RM guidance must be detailed and provide faculty and staff with risk mitigation or risk control measures, by activity. Reference AFI 90-802 and AFPAM 90-803 for further guidance on real-time RM assessment.

9.2.7.4.2. The training group will determine where RM tags are placed in the LP, Part I and/or Part II when teaching steps are not part of the instructional design of the course and for T.O.-based courses.

9.2.7.5. **Energy Conservation.** Where appropriate, weave principles of energy conservation throughout the curriculum in all courses. Guide students in recognizing correct and incorrect applications of energy conservation in the workplace and on the job. Focus on the application of energy conservation principles applicable to AFSC-specific job tasks and responsibilities. Use active learning techniques such as modeling, one-way stories, guided discussions, two-way stories, simulations, personal experiences, and case studies. Instructors will use their discretion as to the technique to be used.

9.2.7.6. **Core Values.** Throughout the course, instructors will weave core values of integrity, service before self, and excellence in all we do throughout the curriculum. Use active learning techniques, called modeling, including one-way stories, guided discussions, two-way stories, simulations, personal experiences, and case studies. Instructor discretion determines which technique to use and when it will be presented.

9.2.7.7. **Air Force Doctrine.** Air Force instructors (active duty and civilian) will introduce Air Force basic doctrine, available on the Curtis E. LeMay Center for Doctrine Development and Education website at <https://doctrine.af.mil>, to Air Force students in all initial skills courses. Throughout the course, instructors will “weave in” information about basic doctrine, using appropriate doctrine documents and active learning techniques. These techniques include, but are not limited to, guided discussion, two-way stories, simulations, past experiences, and case studies. Instructors will use their discretion as to the technique to be used and optimum time to inject Air Force basic doctrine.

9.2.7.8. BMT will integrate physical conditioning standards as curriculum performance objectives. See AFI 36-2905, *Fitness Program*, for current standards.

9.2.8. Do not republish a POI for minor changes that will not affect training resources or change the training standard level of support. The following guidelines apply for minor changes:

9.2.8.1. To approve write-in or page changes, the TDE chief initials the annotated record set copy, or places an electronically signed document or email in the folder (for electronic record sets).

9.2.8.2. The OPR forwards updated information to applicable offices to ensure all POIs correspond with the record set.

9.2.8.3. Incorporate all annotations into the next published change.

9.2.9. **Piggyback Courses.** When two or more courses have identical content (piggyback courses or an MTT), identify which is the mother course and which piggyback courses will be taught using the mother course documents.

9.2.9.1. Initial skills piggyback courses attended by both Air Force officer and enlisted personnel require separate course builds in TTMS ICIS and Student Management.

9.2.9.2. Advanced and supplemental courses attended by both officer and enlisted personnel do not require separate course numbers or course builds. Identify the course based on the predominant type of student attending.

9.2.10. **Common Training Courses.** Ensure the POI Foreword identifies the common course as being for management and resourcing purposes only. Identify all “feeder” courses in the Foreword and describe how the common training fits into the “feeder” courses.

9.3. Distribution. Emails unclassified POIs and POI changes for courses awarding or desired to award CCAF credit to CCAF Course Manager (CCAF/DEA) ccaf.cd@us.af.mil.

9.4. Classified POIs. Do not compromise the qualitative requirements for the administrative convenience of using an unclassified document. Prepare classified POIs according to security directives and local procedures. Modify covers for classified publications to comply with security directives. For classified courses that have unclassified POIs with security markings indicating course content classification level, include a statement at the bottom of each POI page to explain that markings on the page do not refer to POI content. **Note:** Forward classified POIs and course charts together for courses awarding or desired to award CCAF credit to AU/SSO, Attention: CCAF, 401 Chennault Circle, Maxwell AFB AL 36112-6428.

9.5. Lesson Plan (LP) Part II, Teaching Guide:

9.5.1. **Purpose.** An LP is a detailed outline of information and activities used by instructors to guide and conduct the training activities prescribed in the POI. Use the corresponding POI page(s) as the cover page(s) for each unit’s LP. The signed POI page indicates LP approval. **Note:** An LP is not required for Type 6 courses designed for use without an instructor.

9.5.2. **Types.** There are three types of LPs: master, personalized, and station.

9.5.2.1. A **master LP** is an unpersonalized LP used for control and standardization of instruction in each course (except courses taught only once or twice a year). It is the standard against which instructor supervisors check all individual instructor LPs. Maintain at least one set of master LPs on all courses at the course level. The master LP does not require a signature and may be maintained on computer, electronic media, or in TTMS. Merging the LP Part I (POI) and LP Part II is not required for electronic master LPs.

9.5.2.2. A **personalized LP** is an individual instructor’s LP that may include personal notes and information to aid the instructor and supplement the master LP.

9.5.2.2.1. Examples of personalization include entries for the introduction and conclusion, and “right hand” notes that amplify and relate to the teaching steps. Personalization is optional, but highly encouraged, especially for new instructors.

9.5.2.2.2. Identify personalized LPs as such by entering the instructor’s name in the POI template or AETC Form 133 “Name of Instructor” block.

9.5.2.2.3. The instructor supervisor approves the LP, verifying the LP is accurate, applicable and adequate for presentation. A personalized LP must be approved before the instructor uses the LP to teach.

9.5.2.3. A **station LP** is an LP that can be used by anyone teaching the lesson. It is particularly useful when teaching classified information since additional information may change the classification. A station LP may include standardized notes and supporting information in the right column/page and must be approved by the instructor supervisor. Identify station LPs as such, i.e., used by all instructors at a station, lab, or position. It is not personalized.

9.5.3. **LP Approval.** The instructor supervisor reviews and approves personalized and station LPs prior to use and at least annually. The instructor supervisor's approval certifies:

9.5.3.1. The LP is current and matches the master LP.

9.5.3.2. Any notes and/or supporting information are accurate, applicable, adequate, and personalized content is consistent with Air Force core values, policy, and guidance.

9.5.3.3. Training programs containing content on radicalism, cultural awareness, and counterterrorism exhibit cultural sensitivity and respect for religion.

9.5.4. Each instructor will use an approved LP identifying the training activities.

9.5.5. The primary instructor must have an approved LP in the C/L. Supervisors may use a subordinate's lesson plan if substituting during an unexpected primary instructor absence.

9.5.6. **Developing LPs:**

9.5.6.1. Prepare an LP to guide training activities.

9.5.6.1.1. Each training activity must be based on a learning objective.

9.5.6.1.2. An LP is not required for units of instruction or objectives presented by a guest lecturer (a person not affiliated with the course). However, a list of objectives is required. **Note:** Review guest lecturer materials prior to presentation to ensure consistency with Air Force core values, policy, and guidance.

9.5.6.1.3. For courses taught by guest lecturers, prepare a brief outline of the points the lecturer is expected to cover. Also, prepare an alternate plan for use in the lecturer's absence. **Note:** Review guest lecturer materials prior to presentation to ensure consistency with Air Force core values, policies, and guidance.

9.5.6.2. Use a three-part format for LPs.

9.5.6.2.1. **Introduction.** Includes a review (as appropriate), attention, overview, motivation, and transition. Classified courses include classification level statement during introduction. **Note:** 2 AF units will use the 2 AF-developed warrior ethos vignettes as the motivation during the first hour of instruction daily.

9.5.6.2.2. **Body.** Includes the presentation, application (students practice the skills and/or knowledge learned), and evaluation (students are evaluated on objective achievement), as applicable. BMT may add processing, fitness, personal needs, transit, and other topics, as applicable. Identify instruction methods in the lesson plan.

9.5.6.2.3. **Conclusion.** Includes a summary, study assignments, remotivation, and closing. Classified courses include a classification reminder in the conclusion.

9.5.6.3. Use the TTMS 2-column or 2-page format LP outline.

9.5.6.3.1. Annotate course objectives, teaching steps, and technical information (including testable information) in the left column/page. Include sufficiently detailed support elements with each objective and teaching step to facilitate beginning instructor use.

9.5.6.3.2. Annotate support material, planned instructional aide use, and personalization in the right column/page.

9.5.6.4. Course time is tagged to objectives in TTMS ICIS and aggregated to the unit, block, and course. The introduction, body, and conclusion do not have specific time allocations. Account for student break time in accordance with paragraph 8.2.1. The time indicated for each part of the LP is approximate and allows for a reasonable degree of flexibility.

9.5.6.5. When a course includes a field trip, visit, or symposium away from the course environment, describe its purpose and content under the applicable objective in the LP.

9.5.6.6. All teaching steps or training activities involving any hazard that could cause mission degradation, injury, illness, or system damage will be identified with an RM tag in TTMS ICIS. TTMS ICIS will place an RM tag in the left column/page of the lesson plan next to the teaching step. Include a reference in the right column/page to the RM assessment worksheet found in the POI attachment (see Figure 9.1). **Note:** The training group determines where to place RM tags in POI or LP Part II when teaching steps are not included in the POI or for T.O.-based courses.

Table 9.1. Examples of Lesson Plan RM Tags.

Example 1:	
(1)  Type III automatic valve adjustment	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted, perform a real-time RM assessment based on current conditions in accordance with AFI 90-802
(a) Follow manufacturer’s instructions for specific procedures	
(b) Follow safety precautions during valve adjustment	
Example 2:	
(2)  Ruck March Basics	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted,

	perform a real-time RM assessment based on current conditions in accordance with AFI 90-802
(a) Surface conditions	
(b) Weather conditions	
Example 3:	
(2) Individual Movement Techniques	
(a) ORM Low Crawl	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted, perform a real-time RM assessment based on current conditions in accordance with AFI 90-802
(b) ORM Rush and Roll	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted, perform a real-time RM assessment based on current conditions in accordance with AFI 90-802
(3) Moving Over, Through, or Around Obstacles	
(a) ORM Crossing a Wall	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted, perform a real-time RM assessment based on current conditions in accordance with AFI 90-802
Example 4:	
(d) Open Reservoir Swim	
<u>1</u> Identify the hazard	
<u>2</u> ORM Assess the risk	Check POI attachment for risk assessment worksheet. Note: Each time the activity is conducted, perform a real-time RM assessment based on current conditions in accordance with AFI 90-802

Chapter 10

STUDENT INSTRUCTIONAL MATERIALS

10.1. Purpose. Student instructional materials aid students in completing assigned training activities.

10.2. Description. Student instructional materials may be standard publications, TOs, commercial texts, and other published reference material, as well as locally produced handouts, study guides, or workbooks, or programmed texts, videos, audio tapes, computer-assisted programs, or note-taking devices. Locally produced student instructional materials may be used separately or to augment other reference materials.

10.3. Technical Data Use. When Air Force technical data use is required for job performance, integrate technical data use throughout the course. Students must use TOs, inspection work cards, and checklists during system, subsystem, and support equipment operation and maintenance. Maintain technical data as directed by Air Force.

10.4. Cost Effectiveness:

10.4.1. Select the most cost-effective format for student instructional materials. Reuse student instructional materials as much as possible. Avoid single use materials.

10.4.2. Use available standard or specialized publications, such as AFIs and TOs, rather than locally developed student instructional materials whenever possible. Extract, for reproduction only, those pages of the standard or specialized publication necessary for training. Use commercial publications (such as textbooks or reference books) when they support course objectives.

10.5. Currency:

10.5.1. TOs, specialized publications, technical data extracts, and commercial publications should be as current as those used in an operational unit. **Note:** TOs and publications used by the 982 TRG to train tasks to the performance level must be current.

10.5.2. Technical data extracts used to support performance objectives must be from current TOs and publications.

10.5.3. TOs and publications used to support subject-knowledge objectives only may be outdated. Mark outdated publications and TOs that are not current with the TO catalog as “For Training Purposes Only.”

10.5.4. Training libraries will be current unless changes adversely affect compatibility with training equipment, objectives, techniques, or curriculum.

10.5.4.1. Maintain a current master reference copy of each training library title in the flight, squadron, or family group.

10.5.4.2. If numerous TOs and publications are used in the same flight, squadron, or family group, maintain only one master reference copy. Mark others as “For Training Purposes Only.”

10.5.5. The TDE and SMEs will review TO and publication changes for curriculum compatibility. TO and publication updates that are not compatible with training equipment, objectives, techniques employed or that affect curriculum are not posted until equipment and/or curriculum is updated. Continue to post subsequent safety and other significant changes.

10.5.6. Periodically review TOs marked “For Training Purposes Only” to ensure all safety and significant changes are posted.

10.6. Preparing Student Instructional Materials:

10.6.1. Build the document shell for locally produced materials using TTMS ICIS template. Edit the document outside of TTMS ICIS, as necessary. **Note:** The ICIS template does not add the disclaimer or supersession line on all documents (see paragraph 10.6.2).

10.6.2. Prepare the cover of all locally developed student instructional material, preferably on bond paper (if for printing) and include the following:

10.6.2.1. Type of student training material such as study guide (SG); workbook (WB); student text (ST); handout (HO); study guide and workbook, (SW); programmed text (PT).

10.6.2.2. Course identifiers for courses supported.

10.6.2.3. Text title.

10.6.2.4. Publication date.

10.6.2.5. OPR identification.

10.6.2.6. Disclaimer: “Designed for AETC course use. Not intended for use on the job.”

10.6.2.7. Supersession line at the bottom of the title page, the first page, or the (i) page. If the document does not supersede a previous document, state “None.”

10.6.2.8. When the document includes copyrighted material, include a copyright statement on the cover page. Specific requirements may be identified by the copyright release grantor.

10.6.2.9. Foreign disclosure disclaimer if foreign military/international students are to be trained. Examples: (1) “This document contains information which may not be disclosed to international students without proper authorization. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.” (2) “Foreign Disclosure: The information in this document is not restricted and may be disclosed to international students. Refer to the foreign disclosure memorandum in the security annex of the Course Training Plan for further information.”

10.6.3. Include a bibliography of referenced materials, as applicable.

10.6.4. Follow copyright laws. Refer to AFI 51-303, *Intellectual Property - Patents, Patent Related Matters, Trademarks, and Copyrights*, and to the Staff Judge Advocate for proper procedures concerning obtaining releases for use of copyrighted and trademarked material.

10.6.4.1. Maintain all copyright releases on file in the course record set. Provide a copy to SAF/GCQ, in accordance with AFI 51-303.

10.6.4.2. Do not reproduce copyrighted material from Air Force or other government publications without obtaining a separate release.

10.6.5. Refer to AFH 36-2235, Volume 5, for additional information when developing computer-based student instructional materials.

10.7. Writing Standards:

10.7.1. Write student instructional materials in plain English to ensure written material is at the appropriate target audience reading level.

10.7.1.1. Use simple, direct, and clear words.

10.7.1.2. Avoid abstractions.

10.7.1.3. Explain technical terms.

10.7.1.4. Write in the active voice.

10.7.1.5. Write simply and concisely. Use short, familiar words in short sentences and paragraphs. Sentences will be grammatically correct and preferably no more than 20 words long. Paragraphs should be no longer than 10 to 15 lines.

10.7.1.6. Use the same tense, person, and voice throughout a paragraph.

10.7.2. Present the material in a logical, orderly sequence. Sequence should follow POI/LP, as applicable.

10.7.3. Keep the paragraph organization simple. Avoid complicated subparagraphs; convert them to main paragraphs if possible.

10.7.4. Illustrate text when appropriate. Well-placed illustrations make text easier to read and understand.

10.7.5. Write clear, descriptive titles for figures, paragraphs, and chapters. Be specific and avoid one-word titles. Position illustrations as near as possible to the first paragraph that refers to the illustration. Always reference the figure before it appears in the text. Avoid the need to flip pages between text and illustrations.

10.7.6. Edit carefully and rewrite to improve readability. Replace multi-syllable words with shorter words to improve clarity and readability.

10.7.7. Spell out each acronym on first use. Spell out lengthy and uncommon acronyms intermittently to help students learn acronyms more quickly.

10.8. Review. Before publishing or reprinting student instructional materials or releasing computer-based products, review to ensure publication:

10.8.1. Is necessary and consistent with Air Force core values, doctrine, existing law, and national, DoD, and Air Force policies.

10.8.2. Content on radicalism, cultural awareness, and counterterrorism exhibits cultural sensitivity and respect for religion.

10.8.3. Is current, technically accurate, and correlates with and supports course objectives.

10.8.4. Uses familiar words, and easily understood sentences and paragraphs; carefully explains unfamiliar, profession-specific words.

- 10.8.5. Is directed to the appropriate audience.
- 10.8.6. Does not conflict with other publications.
- 10.8.7. Does not include information that could cause adverse public opinion.
- 10.8.8. Uses gender-neutral language and is written in good taste.
- 10.8.9. Does not imply in any way that the Air Force endorses, favors, or restricts the use of a commercial product, commodity, or service.
- 10.8.10. Does not include classified information unless it is an authorized classified lesson. Prepare classified student instructional materials according to appropriate security directives.
- 10.8.11. Does not include copyrighted material without a release from the copyright holder.
- 10.8.12. Document review on AF IMT 1768, *Staff Summary Sheet*, memorandum, etc.
 - 10.8.12.1. Annotate record if classified material is used.
 - 10.8.12.2. Annotate record if document contains copyrighted material. Identify the copyright release location.
 - 10.8.12.3. Annotate record if foreign disclosure restrictions apply.

10.9. Distribution Outside of AETC:

10.9.1. Requests for AETC training materials from another Air Force organization must be coordinated through the requesting organization's parent major command and submitted to HQ AETC/A3T. Requests for AETC training materials from other DoD services or government agencies must be coordinated through HQ AETC/A3T. HQ AETC/A3T will coordinate with the TM to make the release determination. For copyrighted materials, refer to the original copyright owner prior to release.

10.9.1.1. Requests for AETC training materials by a foreign government must be coordinated through the HQ AETC/A3T TPM. The HQ AETC/A3T TPM will coordinate with the Wing FDO and/or HQ AETC/IA FDO.

10.9.1.1.1. Wing FDO will work with the TM to ensure appropriate foreign disclosure statements are applied to course materials released to international students and foreign governments. Appropriate disclosure statements will be applied to student instructional materials given to international students prior to beginning class.

10.9.1.1.2. The following disclosure statement will be stamped or typed on the front or cover page of training materials containing CMI or CUMI in accordance with AFI 16-201, Paragraph 4.4.2.2.: "This information is furnished on the condition that it will not be released to another nation without specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that individual or corporate rights originating in the information, whether patented or not, will be respected, that the recipient will report promptly to the United States any known or suspected compromise, and that the information will be provided substantially the same degree of security afforded it by the Department of Defense of the United States. Also, regardless of any other markings on the document, it will not be downgraded or declassified without written approval of the originating U.S. agency."

10.9.1.1.3. The following statement will be included at the beginning of electronic media CMI or CUMI in accordance with AFI 16-201, Paragraph 4.4.2.3.: “This information is furnished on the condition that it will be given substantially the same degree of security protection given to it by the United States and will not be released to another nation without United States Air Force authorization.”

10.9.1.1.4. The following disclosure statement will be conspicuously displayed at the front or beginning of disclosed unclassified information related to general theory and principles which do not have any handling restrictions, control, access, and/or distribution limitations in accordance with AFI 16-201, Paragraph 4.7.: “This briefing, presentation, or document is for information only. No U.S. Government commitment to sell, loan, lease, co-develop or co-produce defense articles or provide defense services is implied or intended.”

10.9.2. Contractors supporting courseware development may request existing training materials if their statement of work specifically states access requirement. Excerpts from the SOW that reference the requirement must accompany the request.

10.9.3. Fill all other general public requests (such as from contractors without a documented statement of work) as prescribed in DOD 5400.7-R, *Freedom of Information Act Program*.

10.9.4. Do not release any AETC-designed measurement devices.

10.10. Type 6 Distance Learning (DL). When possible, distribute suitable technical training courses or portions of courses to students at their duty locations to reduce TDY-to-school expenditures and student time away from home station. Prepare DL instructional materials as outlined in this instruction, considering design, delivery characteristics, and management. See AFH 36-2235, Volume 5, and AETCI 36-2208 for more information.

10.11. Type 6 DL Instructional Materials:

10.11.1. AETC offers distance learning courses as an alternative to resident training. Training materials include a variety of media such as paper, interactive multimedia courseware, ITV, Internet-based instruction, or video tape. Analyze media options to match the most cost effective, appropriate media with each lesson objective. Courses may use a combination of media.

10.11.2. Instructions for synchronous DL courses, where the instructor is conducting a course from a different location, should be easy to follow. Avoid lengthy instructions. Use broadcast time primarily for training. Use the DL POC or student handouts as much as possible to cover administrative issues.

Chapter 11

VALIDATION

11.1. Purpose:

11.1.1. The purpose of validation is to identify and correct instructional system imperfections. The validation process is used to determine if instructional system content, sequence, methods, and media decisions are sound. These decisions are considered sound if the desired changes in student behavior are achieved with minimal time, money and other resource investment.

11.1.2. Ideally, validation is a concurrent and continual process applied to the instructional system as portions are developed. Validation planning is part of normal course development and begins early in the process, addressing all aspects of the course development effort.

11.2. Procedures:

11.2.1. Base validation primarily on student accomplishment of each objective. Consider comments from students and instructors who have completed the instruction.

11.2.2. Validate as much of the course as possible before students arrive, such as content, sequence of objectives, visual aids, and training media.

11.2.3. Write-in changes based on interim validation findings may be made to the course chart, POI, LP Part II, and student materials during validation. Write-in changes must be approved by the TM or TDE chief, as appropriate. Use a formal change memorandum to document write-in changes for each document.

11.2.4. When course validation is completed, have the local MO re-price any course parameter changes. Update the training plan, as appropriate.

11.2.5. Mother course validation validates piggyback courses if the piggyback course has not changed.

11.3. Planning:

11.3.1. Validate new courses and major revisions that will be taught more than twice.

11.3.2. Use at least three classes for validation. Fewer classes may be used if a three-class validation would take more than a year to complete. Use the minimum number of classes to validate the course and measurement.

11.3.2.1. For Type 6 self-paced courses, validation requires at least 30 students.

11.3.2.2. Synchronous DL course validation requires at least three broadcasts with a minimum of 30 students.

11.3.3. Conduct validation classes under actual training conditions.

11.3.4. Validation planning should address significant course development aspects, such as instructional methods and materials, time allocation, training equipment, alternate delivery and training media selection, and measurement. The plan tailors the process to development specifics. For example, if only one block of a course is revised, plan to validate only that block unless the changed block has a significant impact on course flow and sequence.

11.3.5. Validation plans include the following:

- 11.3.5.1. Start and end dates, and classes to be used.
- 11.3.5.2. Blocks, modules, and units to be validated.
- 11.3.5.3. Data to be collected and means of collection.
- 11.3.5.4. Who will analyze the data and prepare the validation summary report.

11.4. Data Collection and Analysis:

11.4.1. Collect at least the following data during validation classes:

- 11.4.1.1. Student feedback data. Include student comments about course strengths and weaknesses.
- 11.4.1.2. Training development and instructor personnel comments and recommendations relating to items examined during validation.
- 11.4.1.3. Formal measurement/assessment data, including:
 - 11.4.1.3.1. Progress check results on completed AETC Form 98 or locally approved checklist.
 - 11.4.1.3.2. Written test results on completed AETC Form 668 or a computerized test analysis.
 - 11.4.1.3.3. Performance test results on completed AETC Form 98 or locally approved checklist.
- 11.4.1.4. Student washback and academic elimination data.
- 11.4.1.5. Student remediation data (summary of remedial training for specific objectives).
- 11.4.1.6. Resource problems or utilization data; summarize any shortfalls or constraints.
- 11.4.1.7. Student background data.

11.4.2. Analyze data to determine if course design, instruction, equipment, and/or materials meet objectives. Have SMEs check lessons for technical accuracy. Analysis should substantiate that time allocations and objectives are appropriate, especially for self-paced, supervised study, and directed study portions.

11.5. Reports. A validation report documents the actions taken to improve the course and helps prevent duplication of effort. The report should be completed within 30 work days after completion of the last validation class.

11.5.1. Ensure the validation report includes the following:

- 11.5.1.1. Summary of the validation process. Include deviations from the validation plan (with reasons for the deviations, number of classes, and students used) and interim changes made to control documents and instructional materials during validation.
- 11.5.1.2. Constraints. Identify any known resource constraints before or during validation.

11.5.1.3. Summary of significant findings. Include the number of washbacks and eliminations and the block or unit where these actions occurred. Address the adequacy of multiple instructor requirements and usage, objective times, and instructional materials.

11.5.1.4. Conclusions and corrective actions. Summarize the ability of the validation process to provide the data needed to finalize the course. Include changes needed to finalize control documents, instructional materials and equipment, and actions taken or planned. Identify the planned implementation date of the finalized POI, recommended estimated completion dates for any open items, and identify the POC to correct validation findings.

11.5.2. When possible, correct problems identified during validation before teaching the block or course again. Finalize course documents within 90 days of graduation of the last validation class, if possible.

11.5.3. Maintain the validation report with the course record set. After the validation report is approved, source data need not be maintained.

11.6. Measurement Validation. Measurement validation ensures each measurement instrument adequately assesses the student's attainment of the instructional objective. Measurement validation may or may not occur concurrently with course validation.

11.6.1. Data from the first three administrations of each version of a measurement instrument usually provide sufficient information to complete the validation. Different validation parameters may be established based on student flow.

11.6.2. Measurement validation should be completed in a year.

11.6.3. Randomly generated computer measurement validation is accomplished by objective since each measurement presentation is different. This is normally completed after four to six administrations.

11.6.4. During measurement validation, review measurement data after each administration. Annotate comments concerning any test problems on AETC Form 668 or in a computerized test analysis system. If the test analysis system has insufficient space, annotate a cross-reference to a word processing file.

11.6.5. Analyze the measurement instrument as defined in AFMAN 36-2236, Chapters 25, and the high-miss items (50 percent or more missed), and determine if corrective action is required. If the course is under validation, consider the training activities for possible impact.

11.6.6. Identify deficiencies in measurement items, instruction, training materials, etc., and correct as necessary. Record the name of the reviewer and when the review was conducted on AETC Form 668 or in a measurement review electronic file.

11.6.7. Maintain individual student checklist results for the first three administrations of performance test and progress checks until completion of the validation summary. The TDE identifies measurement items missed by more than 50 percent of the students during their first attempt, and documents actions taken to correct deficiencies. Continue to maintain results until the deficiencies are corrected.

Chapter 12

TRAINING DEFICIENCIES

12.1. Description. A training deficiency occurs when a student or group of students do not receive training on all items specified in the training standard prior to course graduation. There are many situations/circumstances that may result in a training deficiency, such as broken/unavailable equipment or a shortage of instructor personnel required to teach a specific objective, unit, or block in the course.

12.2. Training Deficiency Alert. Alerts management the potential for a training deficiency exists and allows units to take corrective action to avoid the training deficiency. Alerts should be submitted as soon as a potential deficiency is identified.

12.2.1. TRS will submit a training deficiency alert through the TRW/TRG to 2 AF/TTOC (2 AF units only) and HQ AETC/A3T concurrently, stating the reason for the deficiency alert and the corrective action necessary to avoid the deficiency (see Attachment 10). **Note:** A training deficiency alert is not necessary if the deficiency cannot reasonably be avoided.

12.2.2. If the TRW/TRG does not have the resources necessary to implement the corrective action, work with HQ AETC to secure the resources, as applicable.

12.2.3. If a training deficiency is avoided, notify the TRW/TRG, 2 AF/TTOC (2 AF units only), and HQ AETC/A3T and identify any follow-up actions necessary.

12.2.4. If a training deficiency cannot be avoided and all specified training cannot be completed prior to course graduation, submit a training deficiency report.

12.3. Training Deficiency Report. Informs management a training deficiency actually occurred and corrective action needed to eliminate the deficiency.

12.3.1. TRS will submit a training deficiency report through the TRW/TRG to 2 AF/TTOC (2 AF units only) and HQ AETC/A3T, and AFCFM (see Attachment 11) concurrently. Include the training standard number, date, and paragraph reference for which training was deficient; the proficiency code level required; the level of training provided; the number of deficient training hours; corrective action taken or planned; and the expected completion date. For training deficiencies expected to impact more than one class, include the projected number of classes and students that will be affected until the deficiency can be corrected.

12.3.2. When training specified in the training standard is not provided before graduation, submit a training deficiency memo to the student's gaining organization. Include the training standard number, date, and paragraph reference for which training was deficient; the proficiency code level required; the level of training provided.

12.3.3. When a training deficiency impacting more than one class is corrected, send a written notice of deficiency termination to the original report addressees.

Chapter 13

NONRESIDENT TRAINING MATERIALS

13.1. Purpose. Nonresident training materials are provided to students at operational bases for use in self-study or group-study training or combination of the two methods. These materials may support career development courses (CDC) or specialized courses (SC). **Note:** These training materials are not procured through or approved by the publications manager.

13.1.1. TRG prepares Air Force CDCs, SCs and other training materials for use Air Force wide. The terms preparing agency and training group are interchangeable.

13.1.2. All training groups (except Goodfellow AFB for cryptologic and certain other CDCs) send CDC and SC manuscripts to the Air Force Career Development Academy (AFCDA) for educational review, edit, test construction, publication, and administration.

13.1.3. Type 6 distance learning is not included in this chapter. Type 6 course materials are prepared, distributed, and administered according to AETCI 36-2208 and as prescribed in other applicable sections of this instruction.

13.1.4. When considering a CDC or SC as an option to meet training needs, see paragraphs 5.2.6.6.2. through 5.2.6.6.2.3., and consider the following additional factors:

13.1.4.1. AFS future population trend.

13.1.4.2. AFS life-cycle training requirements.

13.1.4.3. Proposed subject matter security classification.

13.1.4.4. Number of current STS items that require knowledge upgrade.

13.1.4.5. CDC scope relative to resources required.

13.1.4.6. Available material from other services that will satisfy Air Force OJT and SKT requirements.

13.1.4.7. Number of personnel in upgrade training who will use the CDC.

13.1.4.8. Available in-house training in the using command(s).

13.1.4.9. If the AFS is procedurally oriented and subject to frequent change or equipment oriented, consider the stability of the procedures or equipment in the Air Force inventory.

13.1.5. The AFCDA *Course Development Management Guide: Standards of Course Development*, provides guidance on how to prepare and manage CDCs and SCs published by AFCDA. The guide can be found on the AFCDA SharePoint web-site under the Bookshelf link.

13.2. Writer Resources. Positions are authorized in the TRGs to support CDC-related projects. Timely assignment of qualified personnel to CDC writer positions is essential to ensure trained personnel are available for mission accomplishment. TRGs may request MAJCOM assistance to prepare a new or revised CDC.

13.2.1. Appoint an alternate POC when a CDC or SC writer is not assigned or is on an extended TDY or leave, scheduled to PCS, or retiring,

13.2.1.1. Promptly provide POC information to AFCDA. Include POC full name, rank, DSN, organization, street address, base/city, zip code (include the last 4) and courses for which he or she is responsible. Provide complete course numbers without an X in the number field, unless X is used in the official course number (i.e. 3E2X1 should not be used for 3E251 or 3E271).

13.2.1.2. Indicate whether POC is the primary or the alternate, and provide guidance on the previous writer's status (retired, PCS, TDY, etc.).

13.2.2. CDC writers must complete training identified in AETCI 36-2202, *Faculty Development and Master Instructor Programs*. CDC writers should also attend MECI100, *Course for Authors*, as soon as practical.

13.2.3. CDC writers earn the special experience identifier (SEI) 386, Instructional Materials Writer/Manager, after completing E6AILTXXXX 0C1A, *Career Development Course (CDC) Writer*, and 6 months of satisfactory writing experience.

13.2.4. During preproduction planning and course production/development, CDC writers will not perform duties that negatively impact approved course chart submission dates. CDC writers will provide TRG CDC Manager, TM and squadron commander with a monthly production status update and notify them immediately of potential delays.

13.3. Career Development Courses (CDC):

13.3.1. CDCs are self-study distance learning courses that provide airmen with fundamental AFS career knowledge. CDCs directly support the Air Force OJT program and Weighted Airman Promotion System (WAPS) SKT development.

13.3.1.1. CDCs are developed as required by AFCFM.

13.3.1.2. CDCs are not developed solely to support SKT development.

13.3.2. CDCs provide the career knowledge requirements to support skill-level upgrade as listed and coded in the current STS.

13.3.3. CDCs provide only the career knowledge component of STS tasks.

13.3.3.1. Coordinate with the AFCFM when CDC content cannot be developed to correlate with STS knowledge levels. Document rationale and AFCFM concurrence in the CDC case management file.

13.3.3.2. Consult AFCDA about using multimedia enhancements to achieve designated knowledge proficiency levels.

13.3.4. Notify the AFCFM if STS requirements in the CDC columns cannot be achieved and the STS needs revision.

13.4. CDC Development Process:

13.4.1. Consider CDC requirements during STRTs, training planning teams, STS preparation, and U&TWs. An AFCDA representative and CDC writers should participate in these processes, if possible.

13.4.2. Establish and document CDC requirements in the CFETP, including a customer need date (date the CDC should be available to the field). **Note:** The actual CDC activation date

depends on all volumes being published and available for distribution. AFCDA will activate a course as close to the need date as possible, but a precise date may not be feasible.

13.4.3. The customer need date is impacted by the CDC delivery date. The delivery date is the date when the CDC is available from AFCDA.

13.4.4. The AFCFM normally establishes the customer need date for the CDC in the CFETP and U&TW minutes after consulting with TM, AFCDA, and CDC writer to ensure that customer need date can be realistically achieved.

13.4.5. Ideally, CDCs resulting from an STS change that also impacts resident training should be activated and available by the graduation date of the first students from the associated resident course.

13.4.6. When a CDC requirement is generated by factors that do not result in a new or revised STS or CFETP, the AFCFM must approve the requirement in writing.

13.4.7. Volume Revisions and Changes:

13.4.7.1. Use “write-in” changes for a few minor typographical errors, word or phrase substitutions.

13.4.7.2. Use page changes or separate supplements when less than 40 percent of the course material must be changed.

13.4.7.3. Rewrite the course when more than 40 percent of the material changes as a result of procedures or CFETP requirements. The AFCFM may elect to continue using the existing CDC or deactivate the course and develop interim career knowledge reference to use until the new CDC is published.

13.4.8. **Production Plan.** The CDC writer establishes a production plan for developing and delivering new and revised volumes to AFCDA, based on estimates in AFI 36-2201, Chapter 5. The CDC writer identifies time compression or delay sources that may affect delivery dates. See Attachment 12 for example CDC production plan.

13.4.8.1. The CDC writer identifies the customer need date, projected delivery date to the field by AFCDA, and manuscript submission dates on the production plan and AETC Form 469, *Career Development Course Chart*. See Attachment 13 for example AETC Form 469.

13.4.8.2. The TDE Chief reviews the production plan and AETC Form 469 and signs the AETC Form 469.

13.4.8.3. The TM coordinates on the production plan and AETC Form 469 and signs the AETC Form 469.

13.4.8.4. The TRS/CC approves the production plan and AETC Form 469 by indorsing the production plan and signing the AETC Form 469, ensuring proposed manuscript submission dates support desired activation dates, or are prepared as quickly as the scope, project complexity, writer availability, and other factors allow.

13.4.8.5. Provide copies of the production plan and signed AETC Form 469 to the HQ AETC/A3T TPM, AFCDA, and HQ AETC A3/AAD.

13.4.8.6. If submission dates cannot be met, the CDC writer drafts a production slippage memorandum that includes a revised production plan with new submission dates and an explanation of factors that affected production. Coordinate the memorandum through the TM to the TRS/CC for approval. Forward a copy of the approved memorandum to the HQ AETC/A3T TPM.

13.4.8.7. The HQ AETC/A3T TPM will advise the AFCFM of any CDC development deviations impacting the customer-need date agreed upon at the U&TW.

13.4.9. **Change Supplements.** Change supplements to existing CDCs are normally prepared within 30 calendar days from an identified need. The CDC writer prepares and coordinates AETC Form 469 through the TM to the TRS/CC for approval. Provide copies of approved AETC Form 469 to the HQ AETC/A3T TPM, AFCDA and HQ AETC A3/AAD 30 calendar days before submitting a change supplement to AFCDA. **Note:** Unless a safety issue or pressing technical requirement exists, add supplements to printed course materials the next time the course is packed.

13.5. General Preparation:

13.5.1. CDC preparation time requires careful allocation. Work on the CDC should begin with notification of AFS change approval or any other event that initiates an STS change. The time between the first alert of a change and course chart/production plan approval is the most critical phase, during which the writer should complete detailed research and course planning.

13.5.2. CDC writers will research other services' correspondence courses and procure correspondence materials (catalogs and courses) as required by AFI 36-2230(I).

13.5.3. **Content and Preparation.** CDCs provide AFS career knowledge and support WAPS/SKTs. CDCs are specialty oriented and do not teach specific equipment, weapons systems, or work centers (except career ladders with multiple AFSs or AFSC shreds).

13.5.3.1. CDCs will not duplicate information provided by other Air Force training programs, such as ancillary training or PME. Limit CDC content to AFSC knowledge. When PME or ancillary training provides general task knowledge required for a particular STS item, include in the CDC the specific type and title of PME or ancillary training course. The CDC may contain applications of these topics that are unique to the AFSC.

13.5.3.2. CDCs should contain enough information to illustrate basic principles, techniques, and procedures, and how they apply to common AFS systems and situations. CDCs may address specific equipment items only when a piece or type of equipment best illustrates procedures or techniques useful to the overall AFS.

13.5.3.3. CDCs must provide enough information to meet STS proficiency codes to ensure the correct training level is provided.

13.5.3.4. Consider occupational survey data, if available, when translating broad STS tasks into CDC content. Use CDC course documents and the administrative file to document the process.

13.5.3.5. Content may include a knowledge review to introduce new material or reinforce previously learned material.

13.5.3.6. Design CDCs as self-contained packages. Trainees should be able to complete the entire package without referring to outside sources, except classified CDCs.

13.5.4. **STS Correlation.** Document correlation between course outline key topical statements and applicable STS task or knowledge statements, proficiency codes or behavioral statements. Use an STS or locally devised correlation instrument to link topical statements to the STS items.

13.5.4.1. Unit review exercises and course examinations must measure material to the correct STS proficiency level.

13.5.4.2. Career ladders with multiple AFSs and/or shreds have STS tasks common to several or all specialties in the ladder. Some STS tasks may be common to two or more related career ladders. Identify and organize such common task information into common sections, chapters, or volumes, and then designate those as applicable to the appropriate CDCs. Common material normally addresses several subjects and has limited application. Identify common material to AFCDA.

13.5.5. **Job Safety.** Integrate job safety training throughout the publication.

13.5.6. **Copyrighted Material.** Obtain permission to use copyrighted material during the project planning stage. Keep releases on file. Provide one copy of the copyright release to AFCDA with the manuscript and one copy to SAF/GCQ in accordance with AFI 51-303. Refer to AFI 51-303 and to the Staff Judge Advocate for proper procedures concerning use of and obtaining releases for copyrighted material and trademarks.

13.5.7. **Direct Communication.** Writers should communicate directly with industry, MAJCOM, and other Air Force activity representatives to obtain copyright releases, source materials, or other information required to prepare CDCs. TDY visits are acceptable if necessary.

13.5.8. **Classified Material.** Prepare classified publications according to Air Force and DoD security requirements. Ensure manuscripts processed through AFCDA do not contain classified information.

13.6. Manuscript Preparation:

13.6.1. Refer to the AFCDA *Course Development Management Guide: Standards of Course Development* for the format and guidance on preparing manuscripts (except classified CDCs).

13.6.2. Failure to adhere to format standards will be grounds for rejection of materials/manuscripts.

13.6.3. Submit each volume manuscript to AFCDA on or before the established submission date documented on the AETC Form 469. To assist AFCDA editorial staff, submit each volume as soon as it is completed.

13.7. Prepublication Quality Control:

13.7.1. Review CDC documents and manuscripts for technical accuracy and adherence to quality standards. Use AETC Form 158, *CDC Quality Control Checklist*, to conduct technical, quality and final reviews. Technical, quality and final reviewers initial in blocks 1 through 4, as appropriate. Each reviewer will complete block 6.

13.7.2. **Technical Review.** At least one AFSC-qualified individual, other than the CDC writer or TDE chief, conducts the manuscript technical review to ensure CDC texts support learning objectives. Technical reviewers may be from outside AETC.

13.7.3. **Quality Review.** A CDC writer, other than the author, conducts the quality review. Quality reviewers should be experienced writers and may be from any AFSC. Quality reviewers will verify that manuscript scope and depth support approved course control documents (STS and course chart), and that course content reflects writing technique standards established in the *Course Development Management Guide: Standards for Course Development*. CDC manuscripts must be technically accurate, grammatically sound, error free, and include all illustrations.

13.7.4. **Final Review.** The TDE chief conducts the final review to certify that all required STS knowledge items have been translated to learning objectives of the appropriate scope and level and the publication is consistent with Air Force doctrine, existing law, and national, DoD, and Air Force policies.

13.8. Approving Official Certification. The TM approves the release of the manuscript for publication using AETC Form 107, *Annual or Special Review Record*, certifying the publication:

13.8.1. Is necessary to the Air Force mission, and is consistent with Air Force doctrine, existing law, and national, DoD, and Air Force policies.

13.8.2. Is current, technically accurate, and adequate.

13.8.3. Is directed to a specific audience.

13.8.4. Does not include information that conflicts with, belongs in, or duplicates another publication.

13.8.5. Does not include training offered locally, or through any PME or ancillary training in an Airman's career.

13.8.6. Does not include information that could adversely affect public opinion. CDCs or SCs containing content on radicalism, cultural awareness, and counterterrorism must exhibit cultural sensitivity and respect for religion.

13.8.7. Uses gender-neutral language and maintains propriety and good taste.

13.8.8. Does not imply in any way the Air Force endorses, favors, or restricts the use of a commercial product, commodity, or service.

13.8.9. Does not include copyrighted material without a legal release.

13.8.10. Does not include classified information unless necessary. Classified CDCs must be properly marked and controlled according to applicable security directives.

13.8.11. Covers all required STS items to the correct proficiency levels.

13.9. Manuscript Submission to AFCDA (Except Classified CDCs). Submit manuscripts either electronically or hard copy in accordance with AFCDA guidance. In the memorandum of transmittal, identify a new writer's first manuscript so AFCDA can provide quick review and feedback. **Note:** Do not delay submitting subsequent manuscripts waiting on AFCDA feedback.

13.10. Priority Processing:

13.10.1. When a CDC revision is considered critical, the TM sends a priority assignment request to AFCDA with a copy to the HQ AETC/A3T TPM. The request must include justification to support the requirement.

13.10.2. Changes that affect personnel safety or may result in equipment damage are authorized first priority and do not require separate action. The CDC writer submits a change marked "first priority" and submits the priority request memorandum of transmittal to AFCDA.

13.10.3. HQ AETC A3/AAD, in conjunction with AFCDA, coordinates WAPS-critical CDC processing priorities. Material submission dates, pre-existing course development requirements and the SKT project schedule will determine if and when priority will be warranted.

13.11. Manuscript Processing:

13.11.1. AFCDA instructional system specialists review for instructional adequacy, organization, readability, style, format, and conformance to prescribed methodology and provide feedback to the CDC writer, as appropriate. The CDC writer corrects the manuscript, as applicable, and returns it to AFCDA.

13.11.2. CDC writers conduct a prepublication review of each CDC examination prepared by AFCDA for technical accuracy. Communicate directly with the AFCDA course development team responsible for the specific course. Changes are coordinated with AFCDA and confirmed in writing. The CDC writer destroys examination manuscript copies upon receipt of published copies. Employ appropriate safeguards including those applicable to computer systems to prevent measurement material compromise. Safeguard course examinations and accompanying materials according to AFCDA test review and change procedures. Mail examinations according to AFI 36-2605, *Air Force Military Personnel Testing System*.

13.11.3. AFCDA prepares and sends a monthly manuscript status report to each TRG designated level, which includes manuscript status, a list of manuscripts that are past the stated submission date, a list of manuscripts on hold or returned as unsatisfactory (showing the number of days late and reason for delay), and a list of courses activated.

13.12. SKT Development Support. SKT development schedules are often based on the scheduled CDC manuscript availability dates. Submitting CDC manuscripts on schedule is critical to SKT support. Inform HQ AETC A3/AAD and AFCDA of manuscript submission delays so they can determine if published CDCs will be available for the scheduled WAPS testing cycle.

13.13. CDC Course Reviews. CDC course reviews are conducted after publishing to ensure its currency, technical accuracy, and information adequacy.

13.13.1. **Initial.** The CDC writer conducts an initial review of the newly published CDC upon receipt from AFCDA to ensure consistency with the original manuscript submitted and technical accuracy. Mark the AETC Form 107 initial review block. Document errors but make no text changes at this point.

13.13.2. **Annual.** Annual reviews of CDCs are conducted on the anniversary date of the terminal volume publication. Review CDCs for essentiality, currency, technical accuracy,

and adequacy. CDCs used in the field should be reviewed as scheduled even if the CDC is being revised, edited, or published. Inform AFCDA, by memorandum, when a program change will significantly alter how many Airmen use the CDC to prevent excessive or inadequate stock on hand. Continuing a CDC with fewer than 26 enrollments per year must be justified for cost effectiveness.

13.13.3. **Special.** Conduct a special review whenever a significant AFSC change is implemented (i.e. following a U&TW, new equipment model fielded, T.O. or publication change, etc.), a new STS is published or revised, requested by AFCDA because of a high failure rate or low enrollment, and/or in conjunction with an OAR review. Check AFCDA volume review records to identify possible recommendations or future revisions. A special review may replace a scheduled annual review if conducted within 30 calendar days of the terminal volume publication anniversary date.

13.13.4. For annual and special reviews, include average scores and first-time pass rate in Block V, Remarks, on the AETC Form 107. Refer to the AFCDA Course Analysis Report for this and other CDC statistical data that may be applicable.

13.13.5. Use AETC Form 107 to document review results. Provide a copy of the AETC Form 107 to the HQ AETC/A3T TPM. The HQ AETC/A3T TPM will advise the AFCFM of the recommendation.

13.14. CDC Feedback:

13.14.1. **Student and supervisor surveys.** Surveys are emailed to students and supervisors to measure satisfaction with the content quality and applicability, service efficiency, and solicit improvement input. Personal information is maintained according to Air Force policy and federal law. AFCDA personnel compile responses and make the data available to AFCFMs and CDC writers.

13.14.2. **Course Examination.** AFCDA collects data on and develops course examination statistical analysis. Statistical analysis shows individual item performance and indicates overall student performance on the course examination. AFCDA reviews the analysis and provides a copy to the CDC writer, who uses the data to evaluate course effectiveness and determine future disposition of course components. Refer to the *Course Development Management Guide: Standards for Course Development* for guidance on reading analysis reports.

13.14.3. **SKT/CDC/STS Compatibility Critiques.** CDCs are the source for SKT item development. When appropriate, the SKT team identifies specific STS and CDC currency, relevancy, or coverage areas that need improvement.

13.14.3.1. HQ AETC A3/AAD forwards an SKT/CDC/STS compatibility critique with comments and recommendations to the CDC writer.

13.14.3.2. The CDC writer reviews the critique, takes necessary action, and provides an itemized critique response to TM, the TRG evaluation section, HQ AETC A3/AAD, and the HQ AETC/A3T TPM. Responses are used by the next SKT writing team.

13.14.3.3. The HQ AETC/A3T TPM forwards a copy of the critique response to the AFCFM.

13.14.4. **Student Inquiries.** AFCDA forwards technical inquiries to the CDC writer for reply. CDC writers should answer student inquiries promptly. Document student telephone and email inquiries. Course examination question inquiries require the same safeguards as the examination itself.

13.15. CDC Deactivation. Deactivate CDCs and existing enrollments if a course review, STRT/U&TW, or other event identifies a CDC as no longer required or the CDC does not meet the knowledge requirements of AFS identified in the CFETP/STS. The CDC writer coordinates deactivation rationale with the HQ AETC/A3T TPM. The HQ AETC/A3T TPM will forward the rationale to the AFCFM for review and approval. Deactivation requires AFCFM approval. If approved, the AFCFM notifies HQ AFPC/DPSIT and AFCDA the CDC is being deactivated.

13.16. Specialized Courses (SC):

13.16.1. These self-study distance learning courses extend the educational and training capabilities of Air Force schools to eligible personnel worldwide. SCs may be used for upgrade training and to meet requirements outside the scope of CDCs. The SC is not normally based on an STS or used as a WAPS source reference.

13.16.2. New SCs require Air Force-level approval. Submit new SC production plans to the appropriate AFCFM. Production plans for revisions are approved locally.

13.16.3. Prepare SC production plans in the same format as CDC production plans. For new courses, also include justification for the proposed courses in terms of Air Force quantitative requirements, a summary or outline of the proposed content, and recommended enrollment criteria.

13.16.4. Conduct annual and special reviews of SCs to validate requirements for the course and currency of course content. Conduct annual reviews on the anniversary of the course activation. Conduct special reviews when significant changes to the AFSC or course subject are implemented. Document annual and special reviews on AETC Form 107.

13.16.5. When an SC is no longer required, send a deactivation request with detailed rationale through the HQ AETC/A3T TPM to the AFCFM. Upon approval, notify AFCDA in writing.

Chapter 14

LOW FLOW COURSE REVIEW

14.1. Purpose. The low flow course review verifies advanced and supplemental courses entering fewer than 75 Air Force students in the FY (9 or fewer classes for Type 7 courses and 982 TRG Type 4 courses) are cost-effective and can be fully justified. Consider mother/piggyback courses together.

14.2. Procedures:

14.2.1. TM conducts the review annually on all advanced and supplemental low flow courses during the last quarter of the FY (July – September) and submits a report to HQ AETC/A3T TPM no later than 31 October. **Note:** For courses in validation when a low flow course review is due, conduct the review as part of the validation process.

14.2.2. Report will include the following information:

14.2.2.1. Course purpose such as advanced or supplemental training.

14.2.2.2. Requirement for course. Examples: Legal, AF required certification, SEI, assignment, etc.

14.2.2.3. Criticality of skill/knowledge.

14.2.2.4. Actual student entries for the previous FY.

14.2.2.5. Actual student entries to date for the current FY.

14.2.2.6. Scheduled entries for the current FY.

14.2.2.7. Scheduled entries for the next FY.

14.2.2.8. Manpower. Instructors authorized per UMD; family grouped instructors and fractional cost, if applicable. **Note:** Provide FAC and OSC for manpower authorizations.

14.2.2.9. Equipment. Dedicated equipment, equipment cross utilized with other courses, and equipment maintenance costs.

14.2.2.10. Facilities. Standard facilities needed, specialized facilities needed, facilities cross utilized with other courses.

14.2.2.11. O&M costs (Bench stock, expendable supplies, fuel, etc.).

14.2.2.12. Possible alternate training methodology for all or part of course.

14.2.2.13. Recommendation to discontinue, revise, or maintain course in current state. Provide rationale to support recommendation.

14.2.3. The HQ AETC/A3T TPM reviews the report, incorporates applicable TDY-to-school costs using HQ AETC/A3R data (HQ AETC/SGU data for medical courses), and prepares command recommendation memorandum for HQ AETC/A3T signature. **Note:** For medical courses, coordinate recommendation with HQ AETC/SGU prior to HQ AETC/A3T signature.

14.2.4. The HQ AETC/A3T TPM forwards the signed memorandum to the AFCFM with a courtesy copy to 2 AF/TTOC and AFSAT (if international students trained).

14.2.4.1. If AFCFM concurs with recommendation, the HQ AETC/A3T TPM will notify the TM of decision and task TM to discontinue, revise, or retain the course, as applicable.

14.2.4.2. If AFCFM nonconcurs with recommendation, the HQ AETC/A3T TPM (HQ AETC/SGU for medical courses) will evaluate the AFCFM's justification, resolve any issues, and notify the TM of the final disposition of the course within 60 calendar days.

Note: For medical courses, HQ AETC/SGU assists the HQ AETC/A3T TPM in evaluating the AFCFM's justification and resolving any issues.

Chapter 15

SERVICE TESTING

15.1. Purpose. Service testing allows units to try out ideas and innovations to enhance training efficiency and effectiveness within existing resources. These ideas and innovations must have an anticipated benefit and/or savings to the Air Force. Examples of service test candidates include changing instructional methods or media, testing methods, or instruction sequences, or implementing temporarily training changes dictated by time constraints and customer needs.

15.2. Procedures:

15.2.1. Training squadrons develop a service test plan. This plan identifies the specific changes to be made to training, the anticipated benefit, and the test period with specific start and end dates.

15.2.2. The service test plan is forwarded to the HQ AETC/A3T TPM for review and approval. Do not proceed with the service test without HQ AETC/A3T TPM approval.

15.2.3. Course documentation is exempt from inspections until conclusion of the test, but the process is subject to inspection, and such documents as the measurement plan may be reviewed to ensure TS requirements are met.

15.2.4. Use validation procedures to collect and report findings (see Chapter 11).

15.2.5. For courses attended by enlisted members, email revised and modified course control documents (course charts and POIs) for courses awarding or desired to award CCAF credit to CCAF Course Manager (CCAF/DEA) ccaf.cd@us.af.mil for CCAF credit evaluation at least 14 days prior to class start date.

15.2.6. Send classified course charts and POIs together, via registered mail or secure email in accordance with applicable security directives to AU/SSO, Attention: CCAF, 100 South Turner Blvd, Maxwell AFB Gunter Annex AL 36114.

15.2.7. Upon completion of the test, objectively evaluate findings and use validation report procedures to report results to the HQ AETC/A3T TPM (see Chapter 11).

15.2.8. The HQ AETC/A3T TPM approves any permanent changes to the course validated by the service test.

Chapter 16

PERIODIC COURSE REVIEW

16.1. Purpose. Periodic course reviews are accomplished as part of the ISD evaluation process. The review examines course feedback data and course documents to determine if the course is still needed, meets customer requirements, provides relevant skills and knowledge, duplicates training in other courses, and is properly resourced.

16.2. Procedures:

16.2.1. Conduct a periodic course review on:

16.2.1.1. All Type 2, 3, 4, 5, 6, 7, 8, A, B, C, W, and faculty development courses every 2 years.

16.2.1.2. BMT every 3 years as part of the triennial review process.

16.2.2. Review Types 5 and B to ensure courses still meet Air Force needs and do not duplicate training.

16.2.3. Use the anniversary month of the training standard to determine the review period. Use results from course reviews to initiate changes, as applicable.

16.2.4. Periodic course review is not required if a course revision is scheduled to implement within 120 days or the entire course is in validation. Instead, place a memorandum for record indicating such, with the projected revision or validation completion date, in the course record set. If implementation or validation completion is delayed, document the reason for delay, along with the new implementation/completion date, on a memorandum for record and place in the course record set.

16.2.5. Periodic course review is not required if a course will be discontinued within 6 months. Instead, place a memorandum for record in the record set identifying the course will be discontinued.

16.2.6. During a periodic course review, analyze:

16.2.6.1. Course feedback data (FEQs, EOC, course validation data, as applicable).

16.2.6.2. OAR (if dated after date of training standard) for changes impacting course training standards.

16.2.6.3. Training standard to ensure only relevant skills and knowledge are presented. **Note:** Questions to consider during analysis include: Are any skills and/or knowledge out of date? Has new equipment been fielded? Do the skills and/or knowledge duplicate training in other courses? Do the skills and/or knowledge meet customer requirements? Are the skills and/or knowledge still needed?

16.2.6.4. Course chart and POI to ensure appropriate time is allotted to course and objectives.

16.2.6.5. POI to ensure objectives support training standard tasks and knowledge.

16.2.6.6. Method of instruction for each objective to ensure it is the cost effective and efficient. Consider various alternative methods of training delivery, to include IMI, DL, etc. Refer to AETCI 36-2208 for additional guidance.

16.2.6.7. Course equipment lists to ensure equipment supports training objectives. Identify excess equipment, if applicable

16.2.6.8. LPs and student instructional materials to ensure they adequately support the training objectives and POI.

16.2.6.9. All student measurement devices to ensure they accurately measure the proficiency in each task or knowledge element in the training standard.

16.2.6.10. TPS data entries to ensure data entries match approved training plan course parameters.

16.2.6.11. CTP and any applicable ATPs to ensure consistent and accurate information within the documents.

16.2.6.12. Foreign disclosure memorandums to ensure they are current for latest course revision/change.

16.2.6.13. ETCA in accordance with paragraph 2.2.2.2.

16.3. Documentation. Document the review analysis and submit a report to HQ AETC/A3T TPM within 90 days of anniversary date. Identify deficiencies and corrective actions in each area analyzed. If training duplication exists, include rationale or corrective actions taken to eliminate duplication.

MICHAEL A. KELTZ, Major General, USAF
Director of Intelligence, Operations, and Nuclear
Integration

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DoDM 5200.01, *DoD Information Security Program: Marking Classified Information*, 24 February 2012

DoD 8570.01-M, *Information Assurance Workforce Improvement Program*, 19 December 2005
AFPD 36-26, *Total Force Development*, 27 September 2011

AFI 16-201, *Air Force Foreign Disclosure and Technology Transfer Program*, 1 December 2004

AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination*, 30 May 2013

AFI 23-101, *Air Force Material Management*, 8 August 2013

AFI 36-2101, *Classifying Military Personnel (Officer and Enlisted)*, 25 June 2013

AFI 36-2201, *Air Force Training Program*, 15 September 2010

AFI 36-2230(I), *Interservice Training*, 28 August 1998

AFI 36-2605, *Air Force Military Personnel Testing System*, 24 September 2008

AFI 36-2905, *Fitness Program*, 21 October 2013

AFI 51-303, *Intellectual Property -- Patents, Patent Related Matters, Trademarks, and Copyrights*, 1 September 1998

AFI 65-601, Volume 1, *Budget Guidance and Procedures*, 16 August 2012

AFMAN 36-2234, *Instructional System Development*, 1 November 1993

AFMAN 36-2236, *Guidebook for Air Force Instructors*, 12 November 2003

AFH 36-2235, Volume 1, *Information for Designers of Instructional Systems - ISD Executive Summary for Commanders and Managers*, 2 September 2002

AFH 36-2235, Volume 2, *Information for Designers of Instructional Systems - ISD Automated Tools/ What Works*, 2 September 2002

AFH 36-2235, Volume 3, *Information for Designers of Instructional Systems - Application to Acquisition*, 1 November 2002

AFH 36-2235, Volume 4, *Information for Designers of Instructional Systems - Manager's Guide to New Education and Training Technologies*, 1 November 2002

AFH 36-2235, Volume 5, *Information for Designers of Instructional Systems - Advanced Distributed Learning: Instructional Technology and Distance Learning*, 1 November 2002

AFH 36-2235, Volume 6, *Information for Designers of Instructional Systems - Guide to Needs Assessment*, 1 November 2002

AFH 36-2235, Volume 7, *Information for Designers of Instructional Systems - Design Guide for Device-Based Aircrew Training*, 1 November 2002

AFH 36-2235, Volume 8, *Information for Designers of Instructional Systems - Application to Aircrew Training*, 1 November 2002

AFH 36-2235, Volume 9, *Information for Designers of Instructional Systems - Application to Technical Training*, 1 November 2002

AFH 36-2235, Volume 10, *Information for Designers of Instructional Systems - Application to Education*, 1 November 2002

AFH 36-2235, Volume 11, *Information for Designers of Instructional Systems - Application to Unit Training*, 1 November 2002

AFH 36-2235, Volume 12, *Information for Designers of Instructional Systems - Test and Measurement Handbook*, 1 November 2002

AFH 36-2235, Volume 13, *Information for Designers of Instructional Systems for Basic Military Training*, 6 August 2003

AETCI 36-2202, *Faculty Development and Master Instructor Programs*, 23 May 2012

AETCI 36-2208, *Technical and Basic Military Training Interactive Multimedia Instruction (IMI) and Distance Learning (DL)*, 6 April 2011

AETCI 36-2215, *Technical and Basic Military Training Administration*, 9 September 2010

AETCI 36-2909, *Recruiting, Education, and Training Standards of Conduct*, 2 December 2013

AETCI 38-202, *Education and Technical Training Manpower*, 19 October 2001

Course Development Management Guide: Standards for Course Development, 18th Ed., 2014

United States Air Force Core Values, 1 January 1997, The Little Blue Book

Training Planning System (TPS) Software Users Manual

Air Force Officer Classification Directory (AFOCD)

Air Force Enlisted Classification Directory (AFECD)

Prescribed Forms

AETC Form 1, *Course Cancellation/Discontinuation Request*

AETC Form 98, *Student Progress Checklist*

AETC Form 107, *Annual or Special Review Record*

AETC Form 120, *Training Equipment List*

AETC Form 120A, *Field Training Equipment List*

AETC Form 133, *Plan of Instruction/Lesson Plan – Part I*

AETC Form 158, *CDC Quality Control Checklist*

AETC Form 449, *Course Chart*

AETC Form 469, *Career Development Course Chart*

AETC Form 667, *Criterion Checklist*

AETC Form 667A, *Criterion Checklist (Continued)*

AETC Form 668, *Test Data*

Adopted Forms

AF Form 332, *Base Civil Engineer Work Request*

AF IMT 601, *Equipment Action Request*

AF IMT 813, *Request for Environmental Impact Analysis*

AF Form 847, *Recommendation for Change of Publication*

AF IMT 1768, *Staff Summary Sheet*

AF Form 2005, *Issue/Turn-In Request*

AETC Form 26, *Standard Answer Sheet (50 Items)*

AETC Form 26A, *Standard Answer Sheet (100 Items)*

AETC Form 156, *Student Training Report*

AETC Form 179A, *Course Training Schedule for Allocations*

AETC Form 325, *Student Accounting and Attendance Record*

AETC Form 896, *Lock Step/Multitrack Course Evaluation Data*

Abbreviations and Acronyms

ADL—Advanced Distributed Learning

AETC—Air Education and Training Command

AFCDA—Air Force Career Development Academy

AFCEC—Air Force Civil Engineer Center

AFCFM—Air Force career field manager

AFMC—Air Force Materiel Command

AFMS—Air Force Manpower Standard

AFOSH—Air Force Occupational Safety and Health

AFPC—Air Force Personnel Center

AFRC—Air Force Reserve Command

AFS—Air Force specialty

AFSAT—Air Force Security Assistance Training

AFSC—Air Force specialty code

ANG—Air National Guard

ATP—abbreviated training plan

BMT—basic military training

BOS—base operating support

C/L—classroom/laboratory
CAP—communications-electronics authorization program
CATEX—categorical exclusion
CCAF—Community College of the Air Force
CDC—career development course
CE—course examination
CEDS—course evaluation data sheet
CFETP—career field education and training plan
CMI—classified military information
CRE—course resource estimate
CSIL—customer service information line
CTP—course training plan
CTS—course training standard
CUMI—controlled unclassified military information
CWS—compressed work schedule
DL—distance learning
DLA—Defense Logistics Agency
DoD—Department of Defense
DSN—defense switched network
EAID—equipment authorization inventory document
EEIC—element of expense investment code
ERRC—expendability, recoverability, reparability, cost
ETCA—education and training course announcements
FDO—foreign disclosure office
FEQS—field evaluation questionnaire summary
FTD—field training detachment
FTT—field training team
FY—fiscal year
FYDP—future years defense plan
GSA—General Services Administration
ICIS—Interactive Courseware Implementation System
IMI—interactive multimedia instruction

ISD—instructional systems development
ITRO—interservice training review organization
ITU—instructional technology unit
LP—lesson plan
MAJCOM—major command
MASL—military articles and services list
METC—Medical Education and Training Campus
MIR—multiple instructor requirement
MO—manpower office
MOA—memorandum for agreement
MOU—memorandum of understanding
MRA—mission ready Airman
MTT—mobile training team
NPS—non-prior service
O&M—operations and maintenance
OAR—occupational analysis report
OSC—Organizational Structure Code
OI—operating instruction
OJT—on-the-job training
OPR—office of primary responsibility
PAS—personnel accounting system
PDS—personnel data system
PME—professional military education
POC—point of contact
POI—plan of instruction
POM—program objective memorandum
PS—prior service
RDS—records disposition schedule
RM—risk management
SC—specialized course
SEI—special experience identifier
SG—study guide

SIA—special individualized assistance

SKT—specialty knowledge test

SME—subject matter expert

SMY—student man years

SOW—statement of work

SPRAM—special purpose recoverable authorized to maintenance

STR—student training requirement

STRT—specialty training requirements team

STS—specialty training standard

SUM—software user's manual

TDE—training development element

TDY—temporary duty

TM—training manager

TO—technical order

TP—training plan

TPM—training pipeline manager

TPS—training planning system

TPR—trained personnel requirement

TR—training reference

TRG—training group

TRQI—training requester quota identifier

TRS—training squadron

TRSS—training support squadron

TRW—training wing

TS—training standard

TTMS—technical training management system

U&TW—utilization and training workshop

WAPS—Weighted Airman Promotion System

WOT—week of training

WB—workbook

Terms

Abbreviated Training Plan—Means to make changes in resources and/or manpower requirements or to add/remove motivational training to/from an existing CTP. The abbreviated training plan is an addendum to the certified CTP, addressing only those specific areas of the original CTP that were changed.

Appraisals—A group of questions and/or projects used to check day-to-day learning; used informally during teaching-learning activities to help determine student comprehension and progress. The appraisal can be used in consideration for washback and advancement, but not to satisfy an objective.

Base Operating Support—Any base activity supporting technical training that is not typically funded with technical training dollars. Examples include dining halls, dormitories, child care centers, transportation, civil engineering, hospitals, force support functions, etc.

Behavior—Specifies what a student must do to satisfy a job performance requirement. Behavior may involve recall, manipulation, discrimination, problem-solving, performing a step-by-step procedure, or producing a product.

Behavioral Statement—Statement of the behavior the student must exhibit. If a condition or standard is needed to clarify the behavior, either or both should be included.

Block of Instruction—One or more related units or modules grouped to cover course major subject or task areas.

Career Field Education and Training Plan—Comprehensive core training document that identifies life-cycle education and training requirements, training support resources, and minimum core tasks requirements for a specialty.

CerTest—Certification and Testing

Classroom/Laboratory—Location where classes meet and training is conducted. Time spent in a classroom/laboratory environment is dedicated to student course objective achievement. Instructional methodology may vary, but a qualified instructor must be present during this time.

Common Training Courses—Courses used to price manpower from multiple courses using the same curriculum. Common training courses have no schedules of their own and are usually identified by a “T” or a “U” in the fourth position of the course number.

Condition—Specified limits under which behavior is performed. Conditions may include the use of specific TOs, or equipment provided to perform a task during which the behavior will be demonstrated. Conditions may also be information provided to guide action a specific way.

Course Chart—Document that outlines general course structure and content by block and unit of instruction. It also provides course parameters and other course data for staff personnel.

Course Content—Knowledge and skills, including proficiency levels, identified in the applicable training standard which will be taught. Adding or deleting tasks, or changing proficiency levels constitutes a course content change. Rearranging objectives, reallocating times within a course, and inserting technology or updated equipment used to teach course content, address how the course content is taught but do not change actual course content.

Course Control Documents—Documents used to control course content and instruction. They include the training standard, course chart, and plan of instruction.

Course Implementation—Course implementation begins when the first validation class starts.

Course Parameters—Course parameters include course length in days, classroom/lab instructor hours, course length manpower days, course length manpower hours, shift group limit, programmed group size, minimum group size, maximum group size, expansion group size, STR/TPR, training intervals, training days (shift).

Course Resource Estimate—Initial vehicle used to seek training resource funding. The estimate includes resources needed to initiate training and sustain it through the future years defense plan (FYDP). The CRE is intended to be an accurate estimate developed by the TM, and is the foundation of the course training plan. It is not in finite budget detail.

Directed Study—Time dedicated to course objective achievement using self-study instructional materials. Specific objectives must be assigned and measured. Material covered must not be re-taught. Instructor direct supervision is not required. Instructor authorizations are not earned for directed study hours.

Distance Learning—Structured learning mediated with technology that does not require an AETC instructor's physical presence. DL models can be used in combination with other forms of instruction or to create wholly virtual classrooms. DL is also known as Type 6 formal technical training, exportable training, and advanced distributed learning (ADL).

Energy Conservation—Reduction in the amount of energy consumed in a process or system, or effectiveness through increasing efficiency of energy use, economy, eliminating waste, or increasing the productivity of energy consumed.

Expansion Group Size—Maximum number of students that can be accommodated under wartime surge conditions. Consider all available local options, but do not allow for washbacks. This group size is for wartime planning only, based on wartime course requirements.

Family Grouping—Courses with like AFSCs or areas of instruction, controlled by OSC and personnel accounting system (PAS). Instructors are cross-utilized.

Feeder Courses—Courses with schedules that feed into another course, usually a “common course”. Students are scheduled against and enrolled into feeder courses so the courses have SMY costs, however, they do not earn instructors. Instructors are earned against the common course.

Field Training Team—Group of field training detachment course instructors who conduct training at an operational base using its facilities. Mobile training sets may be used to support training. They usually consist of trainers, training aids, and operational equipment designed for field use in support of maintenance training. This training is only conducted by 982 TRG field training detachments.

Front End Analysis—Structured process used to examine training requirements and identify alternate job task training approaches. The process includes job task identification, required skills and knowledge analysis, available training technologies assessment, media analysis to determine the best delivery methods, and cost and lead-time comparisons to determine feasible alternatives.

Group or Team Measurement—Performance progress check or performance test used to measure student performance objective achievement when participating in a group or team effort.

Group Size—Number of students in a class or group. Group sizes are established to make efficient use of facilities and resources, ensure transfer of learning, program classes to satisfy training requirements, determine instructor requirements, evaluate training expansion capability, and manage class cancellation. Group sizes are established in coordination with the local manpower office.

Group-Lock Step—Each group of students progresses through the course at a predetermined pace and schedule to complete training. This design is normally used when course-operating constraints dictate adherence to planned instructional times.

Group-Paced—Students progress through the course at the same rate, based on the ability of the group. Hours listed in the course chart, established during course validation, are averages that the typical group is expected to need.

Instructional Design—One of three planned strategies (group-lock-step, group-paced, or self-paced) for student progress through a course. Strategy combinations may be used as appropriate.

Instructional Materials—Materials used by instructors and/or students in formal courses, including training aids, TOs, commercial publications, visual aids, etc.

Instructional Systems Design—Systematic course development approach based on training needs.

Instructional Methods—Technique or skill used to engage students in meaningful learning experiences. Commonly used methods include lecture, demonstration, self-study, computer-based training, and OJT.

Knowledge Objective—Objective written to satisfy training standard subject or task knowledge requirements.

Lesson Plan—Document used during a unit of instruction to guide teaching-learning activities. Lesson Plans normally consist of two parts. Part I includes the appropriate POI pages or the objectives listed on AETC Form 133. Part II is the teaching guide.

Master Copy, Written Test—Copy of a written test annotated to identify the correct answers, show POI objective correlation to each test item, and identify the approved test corrections and changes.

Master LP—LP used to control and standardize instruction. The master LP is not personalized. It is the standard against which instructor supervisors check all other LPs. In a two column format, the right column may include data to guide and expand upon the lesson, but will not include individual instructor personalization.

Maximum Group Size—Maximum number of students that can be accommodated based on peacetime facilities and equipment use, considering safety and effective instructional methods. Maximum group size does not include possible washbacks.

Measurement Plan—Plan that defines methods used to measure student course objective achievement, and illustrates the correlation between a measurement device (or test item) and POI objective.

Measurement—Process consisting of both informal and formal measurement devices designed to assess student attainment of the training objective.

Minimum Group Size—Minimum number of students who can be trained and still satisfy course training objectives, team instructional requirements, safety requirements, and/or cost-effective resource use. Except in unusual circumstances, the minimum class size will be two or more. Minimum group size affects whether or not a class will be cancelled.

Mission Ready Airman (MRA)—Task-certified, performance-certified technical training graduate who is ready to perform specific duties upon arrival at the first duty station.

Mobile Training Team—Team of course instructors that conducts training using facilities at an operational base; team may use mobile training sets to support training. Mobile training sets usually include trainers, training aids, and operational equipment designed for field use.

Motivational Training—Use of specified and approved training tools (physical exercise/tasks or training aids) to reinforce attention-to-detail, motivate students, and/or build teamwork to accomplish a specific goal or training objective to promote student success.

Multiple Instructor Requirement—Total number of instructors (including primary instructor) required to train an objective to the maximum group size; MIR is based on equipment, safety, supervision, span of control, and other related factors.

Nonstandard Training Day—Training day that is more or less than 8 hours.

Objective—A precise statement of the learned behavior (skills, knowledge, or attitudes) a student is expected to demonstrate, the condition under which the behavior is to be exhibited, and the standard of acceptable performance upon completion of training. The behavior and conditions found in performance objectives duplicate or simulate as close as possible those found in the job environment.

Outprocessing Appointments—Time dedicated to student appointments prior to departing the training base.

Performance Objective—Objective written to satisfy one or more TS task performance requirements. Conditions and standards are required.

Performance Recheck—Test used to reevaluate student performance on a specific objective; administered in exactly the same manner as a performance test.

Performance Test—Measurement instrument administered to evaluate student performance objective attainment; requires student accomplish a performance objective under controlled conditions in a formal testing mode.

Personalized LP—Duplicate of the master LP, but annotated with notes by each instructor for individual use.

Piggyback Course—Course that shares curriculum (has blocks in common) with another course and uses the same resources. Students who attend piggyback courses normally attend all or part of the blocks of instruction in the mother course.

Plan of Instruction—Course control document organized by blocks and units in the preferred sequence of instruction, and lists the course objectives, necessary support materials and guidance, and training time allotted for each block, unit, and objective.

Program Group Size—Number of students per group used to schedule (program) classes. The program group size is the basis for manpower computations. It will be the same as the maximum group size, except when washback and elimination rate adjustments are required. The program group size may be exceeded (up to maximum group size) to reduce student awaiting training numbers.

Programmed Text—Instructional materials in programmed instruction format.

Progress Check—Formal assessment administered by the instructor during classroom or laboratory instruction time to assesses student knowledge or performance objective accomplishment. This check provides immediate student and instructor feedback.

Record Set—Electronic or paper file copy of course materials, including changes and/or revisions. It includes the CTP, TS, CC, POI, measurement plan, LPs, copyright release if applicable, and a distribution list if required. Unclassified electronic record sets are maintained in TTMS ICIS. Classified record sets are maintained in accordance with applicable security directives.

Refresher Course—Course that reviews previous training.

Self-Paced—Instructional design where students progress through the course at varying rates based on individual ability. The CC lists average hours typical students are expected to need.

Special Individualized Assistance—Remedial instruction supervised by a qualified instructor for students who have difficulty meeting objective and/or course requirements.

Standard Training Day—8 hours of classroom and/or lab time divided into 50-minute instruction periods with 10-minute breaks and one hour for mealtime. The Keesler AFB compressed work schedule standard training day is an 8-hour training day of 445 instruction minutes with 35 minutes of break time and one hour for mealtime. At least 4,000 instruction minutes must be provided during a 9-day training period.

Standards—The qualitative and quantitative criteria against which student performance will be measured to determine successful learning. Standards may be expressed by such terms as accuracy, speed, percent/ratio, number of permissible errors, degree of excellence; standards may reference other directives, such as TOs.

Station LP—An LP used by all instructors assigned to a specific station, classroom, laboratory or position.

Student Handout (HO)—A booklet, schematic, circuit diagram, table, or similar material that augments the SG, WB, or student text, or otherwise supports course objectives.

Student Instructional Materials—Materials used in AETC, normally prepared locally by the TRG.

Student Man-Year—Manpower resource used to compensate for lost duty time due to training (initial skills pipeline and PCS-length course students only). Refer to AETCI 38-202 for additional information.

Student Progress Checklist—A list of elements or steps that helps determine if a student satisfactorily accomplishes an objective during a performance progress check or performance test.

Student Text—Reading material that helps the student achieve course objectives.

Student Training Requirements—Training users (other than active duty Air Force non-prior service, prior service, and retrainees) who attend enlisted initial skills training. These include, but are not limited to ANG, AFRC, Army, Navy, Marine Corps, civilian, and international students.

Study Guide (SG)—A type of student instructional material that provides subject and task knowledge to support training objectives. Study guides may include review questions.

Study Guide/Workbook (SW)—A type of student instructional material that combines a study guide and a workbook into one document.

Supervised Study—Time dedicated to achieving course objectives using self-study instructional materials. Specific objectives must be assigned and measured. Material covered must not be re-taught. A subject matter qualified instructor must be present and may monitor more than one group of students.

Support Equipment—Equipment items that enhance training and provide indirect support of training objectives.

Teaching Steps—Main points that support lesson objectives.

Test Data—Test administration results and summaries, documented in the computer based test analysis report or on AETC Form 668.

Test Review—Process used to solicit measurement instrument feedback. Results are summarized and analyzed to assess test reliability and validity.

Test Validation—Process to determine if a test successfully measures the intended objectives.

Total Programmed Entries—Total student requirements per course. For initial skills courses, it includes the TPR, additional requirements to compensate for attrition, and all other requirements (ANG, AFRC, other services). For supplemental and advanced courses, it is the total of all fiscal year course requirements.

Training Deficiency—A condition in which students are not trained to the required proficiency on all TS items prior to graduation. For example, broken or yet to be delivered equipment, or a temporary instructor shortage could cause a deficiency.

Training Equipment—Equipment items necessary to meet training objectives, usually items students are being trained to use, maintain, or operate.

Trained Personnel Requirements—Total initial skills course Air Force production requirements for nonprior service, prior service, and retrainees, or a combination of the three. TPR does not include ANG, AFRC, or other service requirements.

Training Pipeline Manager—Personnel assigned to HQ AETC/A3T who are responsible for overall cradle to grave management of technical training pipelines, and for MAJCOM staff level training management. TPMs ensure training programs support Air Force specialty requirements and CTPs and new course development comply with Air Force policy; partner with the AFCFM throughout a U&TW, and chair the U&TW training and training resourcing section.

Training Plan—The primary resourcing document for planning, programming, and implementing training based on implementation year training requirements. It contains the

proposed course outline, identifies required resources (facilities, equipment, manpower, etc.). The CTP is the justification for using current and future resources and acquiring additional resources necessary to conduct the specified training. It is a refined and accurate statement of resources required to support a course.

Training Resource—Facilities, equipment, funding, supplies, training spares, supply spares, and manpower (as affected by total programmed entries, student authorization, group size, course length, and MIR) required to develop and conduct approved training.

Unit of Instruction—Segment of instruction focusing on one or more closely related objectives and supporting instructional activities.

Validation Data—Data collected and analyzed during the validation process. Examples include measurement data, student general information, instructional material comments, post-lesson interviews, questions about instructor-presented lessons, and audio or video media.

Wartime Course—Course designated by higher headquarters to be conducted during wartime. Wartime courses are categorized as (1) courses directed to continue training at the existing student flow to satisfy the TPR or (2) courses directed to expand student flow above the TPR to satisfy wartime training requirements.

Workbook (WB)—A type of student instructional material that provides practical work, procedure application, and problem-solving exercises in support of training objectives.

Written Test—Formal measurement device designed to evaluate student task and subject knowledge.

Attachment 2

SAMPLE COURSE RESOURCE ESTIMATE

Table A2.1. Example

TO: HQ AETC/A3T

FROM: (Appropriate TRG)

SUBJECT: Course Resource Estimate for (Course Number and Title)

1. (State Reason for New or Changed Training)

Course Parameters:	_____No Impact	_____Impact (See Narrative)
a. Length (days)	_____New	_____Old
b. Classroom/Lab Instructor Hours	_____New	_____Old
c. Course Length Manpower Days	_____New	_____Old
d. Course Length Manpower Hours	_____New	_____Old
e. Shift Group Limit (see TPS User’s Manual)	_____New	_____Old
f. Programmed Group Size	_____New	_____Old
g. Minimum Group Size	_____New	_____Old
h. Maximum Group Size	_____New	_____Old
i. Expansion Group Size	_____New	_____Old
j. STR/TPR	_____New	_____Old
k. Training Intervals (see TPS User’s Manual)	_____New	_____Old
l. Training Days (shift)	_____New	_____Old

Note: Include MIRs if possible. If MIRs are not shown, requirements will be underestimated.

Manpower:	_____No Impact	_____Impact (See Narrative)
a. Instructors	_____New	_____Old
b. SMYs	_____New	_____Old
c. Course Development Personnel	_____New	_____Old
d. Training Overhead	_____New	_____Old
e. BOS	_____New	_____Old

Equipment:	_____No Impact	_____Impact (See Narrative)
a. Training	_____No Impact	_____Impact (See Narrative)
b. Support	_____No Impact	_____Impact (See Narrative)
c. Other	_____No Impact	_____Impact (See Narrative)

Facilities: _____ No Impact _____ Impact (See Narrative)
Funding: _____ No Impact _____ Impact (See Narrative)
Non-AETC Support Requirement: _____ No Impact _____ Impact (See Narrative)
STS/CTS: _____ No Impact _____ Impact (See Narrative)
Course Chart: _____ No Impact _____ Impact (See Narrative)

2. Training Group Approval (TRG/CC or designated level)

Signature Block Name, Grade, USAF

Atch

Narrative

Attachment 3

MANPOWER RESOURCE DECISION LOGIC NARRATIVE

Note: Use this narrative to develop and process the training plan manpower annex. Before a course can be activated and conducted, HQ AETC/A1MRT must validate the manpower annex, and HQ AETC/A3T must certify the training plan. Manpower annexes either have no manpower impact, or require additional manpower resources from the wing, AETC, or the using commands. Once manpower resources are available or appropriate workarounds coordinated and approved, the HQ AETC/A3T TPM will certify the training plan and notify the TM, HQ AETC/A1MRT, 2 AF/TTOC, and local MO. For Type 5 medical courses, HQ AETC/A3T TPM works with HQ AETC/SG and AFMOA to validate manpower resource estimate received from METC.

A3.1. TM Requests Annex. TM forwards a manpower annex request to the local MO when a course transfers from one base to another, existing course parameters changes (such as course length [days or hours], MIRs hours, program group size, or shift limit), or when developing a new course.

A3.2. Local MO Develops Annex. The local MO develops the manpower annex using data from the TM and appropriate databases, and validates the manpower-related data.

A3.3. Local MO Forwards Annex. Local MO sends the manpower annex to the TM.

A3.4. TM Reviews Annex. If no additional manpower is required, the TM includes the annex in the CTP. If additional manpower is required the TM seeks offsets/manpower as follows:

A3.5. TM Seeks Offsets Locally. If manpower offsets are not available in the TRS, the TM contacts the TRG for availability within the TRG or TRW.

A3.5.1. If manpower offsets are available, the TRG notifies the TM. The TM identifies the offsets to local MO, who annotates the offsets in the manpower annex and finalizes the annex.

A3.5.2. If manpower offsets are not available locally, the TM will notify local MO who finalizes the annex.

A3.6. Local MO Finalizes Annex. The local MO finalizes the annex and forwards the final annex to the TM to include in the CTP.

A3.7. TM Finalizes Training Plan. TM forwards the completed and approved CTP to the local MO.

A3.8. Local MO Forwards Approved Training Plan. The local MO prepares a memorandum summarizing any manpower impacts, attaches the memorandum to the approved training plan, and emails the complete package to HQ AETC/A1MRT with a courtesy copy to HQ AETC/A3T TPM no later than 60 days prior to course implementation date

A3.9. Manpower Requirements Validation. HQ AETC/A1MRT validates manpower requirements and forwards a recommendation to HQ AETC/A3RB-TT, with a courtesy copy to HQ AETC/A3T TPM.

A3.9.1. If offsets are available within the command, HQ AETC/A1MRT, HQ AETC/A3R, and the HQ AETC/A3T TPM work to identify and allocate the offset to the course. HQ

AETC/A1MRT validates the annex and notifies the HQ AETC/A3T TPM, TRW/MO, and the TM. HQ AETC/A3T certifies the training plan.

A3.9.2. If offsets are not available within AETC, the HQ AETC/A3T TPM contacts the AFCFM to request manpower from using commands.

A3.9.3. If the AFCFM secures manpower from using commands (to be used by AETC as instructors, SMYs, or support personnel), the losing commands transfer the authorizations to HQ USAF/A1M. HQ USAF/A1M transfers them to HQ AETC.

A3.9.4. For medical courses, if offsets are not identified by HQ AETC/SGU, then HQ AETC/SGU coordinates requirements with HQ USAF/SG.

A3.9.4.1. If offsets are acquired, HQ AETC/SGU notifies the HQ AETC/A3T TPM. HQ AETC/A3T certifies the training plan.

A3.9.4.2. If offsets are unavailable, HQ AETC/SGU notifies the HQ AETC/A3T TPM.

A3.10. TM Coordinates Workarounds. If manpower is unavailable, the TM coordinates with the HQ AETC/A3T TPM and AFCFM to identify workarounds to satisfy the training requirement until resources are available.

Attachment 4

EQUIPMENT RESOURCES AVAILABILITY DECISION LOGIC NARRATIVE

Note: Use this narrative process to identify and locate equipment resources necessary to conduct training. Training is not implemented until equipment requirements have been resourced and the training plan has been certified.

A4.1. TRS.

A4.1.1. TM identifies equipment requirements on AETC Form 120.

A4.1.2. TM forwards a copy of the AETC Form 120 to the equipment custodian to confirm equipment is on-hand in the TRS or identify any shortages.

A4.1.2.1. If the equipment is available in the TRS, the TM completes the training plan logistics annex.

A4.1.2.2. If equipment is not available in the TRS, the TM contacts the TRG POC to check on equipment availability in the TRG or TRW.

A4.2. TRG or TRW.

A4.2.1. If the equipment is available in the TRG or TRW, the TRG POC instructs the TM to proceed with developing the equipment annex.

A4.2.2. If the equipment is not available, the TM contacts the HQ AETC/A3T TPM to check AETC equipment availability, and courtesy-copies the TRG POC.

A4.3. AETC.

A4.3.1. If the equipment is available in AETC, the HQ AETC/A3T TPM notifies the TM, with courtesy copy to the TRG, providing supply information. The TM uses this information to develop the logistics annex.

A4.3.2. If the equipment is not available in AETC, the HQ AETC/A3T TPM solicits HQ Air Force Materiel Command (AFMC) assistance. For medical courses, refer to paragraph A4.6.

A4.4. AFMC.

A4.4.1. If the equipment is available in AFMC, the HQ AETC/A3T TPM instructs the TM to develop the logistics annex using this information.

A4.4.2. If the equipment is not available in AFMC, the HQ AETC/A3T TPM will contact the AFCFM for assistance.

A4.5. AFCFM.

A4.5.1. The AFCFM will query the major command (MAJCOM) functional managers for equipment and/or funding requirements.

A4.5.2. If the equipment and/or funding is available from another MAJCOM, the AFCFM makes the equipment/funds available and notifies the HQ AETC/A3T TPM. The HQ AETC/A3T TPM notifies the TM to develop the logistics annex with this information.

A4.5.3. If the equipment and/or funding is not available, the AFCFM, HQ AETC/A3T TPM, HQ AETC/A3R, and TM look for alternatives or workarounds. The AFCFM, HQ

AETC/A3T TPM and HQ AETC/A3R will coordinate the out-of-cycle funding training requests through AF/A1PT. Training is not implemented until resourced or workarounds/alternatives are coordinated and the training plan certified.

A4.5.4. When equipment or funding becomes available, the HQ AETC/A3T TPM notifies the TM to develop the logistics annex with this information. The TM develops the logistics annex, based on requirements identified on AETC Form 120.

A4.6. If equipment is not available in AETC, HQ AETC/A3T TPM works with HQ AETC/SGU to query other MAJCOMs and HAF/SG for assistance.

A4.6.1. If the equipment and/or funding is available from another MAJCOM, the HAF/SG makes the equipment/funds available and notifies the HQ AETC/SGU. The HQ AETC/SGU notifies the HQ AETC/A3T TPM. The HQ AETC/A3T TPM notifies the TM to develop the logistics annex with this information.

A4.6.2. If the equipment and/or funding is not available, the AFCFM, HQ AETC/A3T TPM, HQ AETC/SGU, and TM look for alternatives or workarounds. The AFCFM, HQ AETC/A3T TPM, and HQ AETC/SGU will coordinate the out-of-cycle funding training requests through HAF/SG.

Attachment 5

AETC FORM 120 COMPLETION INSTRUCTIONS

A5.1. Entries:

A5.1.1. Header. Enter course number, course title, course start date, training location, and date equipment list prepared in the appropriate blocks of the form header. Enter the dates in the following format: four digit year, two digit month, two digit day. (**Example:** 14 December 2012 is written as 20121214 and 7 January 2013 is written 20130107.)

A5.1.2. Item Number. Enter item numbers in ascending order, corresponding to each item listed by stock number/part number.

A5.1.3. Stock Number. Enter stock numbers for each item in ascending order. If an item is not stock listed, provide manufacturer's part number. For equipment authorization inventory document (EAID) items, the prime national stock number (NSN) cited is the appropriate table of allowances (TA).

A5.1.4. Nomenclature. List equipment items under one of the four following headings, depending on funding source:

A5.1.4.1. **Part I—Investment Items (Base Funded).** This heading includes Air Force decentrally managed investment type equipment items (ERRC codes "NF") with a unit cost of \$250,000 or more. Items are procured or requisitioned at base level from commercial vendors, the Defense Logistics Agency (DLA), the General Services Administration (GSA), or are locally manufactured. These items are charged to AETC appropriations 57X3080 and EEIC 140. They are identified by budget code "Z."

A5.1.4.2. **Part II—Expensed Items (Base Funded).** This part includes Air Force centrally procured expense items (ERRC coded XB, XF, and possibly XD), as well as Air Force decentrally managed expense items requisitioned or procured at base level from DLA, GSA, Army, Navy, Depot Maintenance Service, Air Force Industrial Fund, commercial vendors, and equipment items acquired from functional communities other than AFMC. These items apply to O&M appropriation 57X3400, identified by budget codes 1, 9, and possibly XD8 special purpose recoverables authorized to maintenance (SPRAM) assets.

A5.1.4.3. **Part III—AFMC Financed Items.** This part includes items procured and funded by AFMC.

A5.1.4.4. **Part IV—Financing Unknown.** This part includes items for which funding responsibility cannot be ascertained. Include SPRAM training spares and XD/XF-coded repair assets in this part.

A5.1.4.5. **Part V—Other Known Financing.** This part is used to document medical course equipment which is not base or AFMC funded. Also, use Part V to document any equipment owned by others and used through a memorandum of understanding.

A5.1.4.6. Use abbreviated nomenclature if the item has a valid stock number. Otherwise, describe the item in sufficient detail to identify it.

A5.1.5. **Allowance Source Code (ASC).** Enter "NA" – not applicable – for non-EAID or non-CAP items. Enter "CAP" if applicable. For EAID items, enter the first three digits of the applicable ASC or include action being taken in the remarks column.

A5.1.6. **Quantity-Maintenance.** Enter the quantity maintenance requires to support the course.

A5.1.7. **Quantity—Support.** Support items are those that enhance training and provide indirect support of training objectives (i.e., administrative computers, smartboards, projectors, tool kits, etc.). Support items are not necessary to meet training objectives. Support items are those authorized on administrative and support EAIDs. Enter the quantity required for the course.

A5.1.8. **Quantity—Training.** Training items are those that are necessary to meet training objectives; usually those equipment items students are being trained to use, maintain or operate (i.e., LRUs, computers and specific tools). Enter the quantity required for training. Training spares are SPRAM assets identified in appropriate TOs and authorized on AF IMT 601, *Equipment Action Request*, AF Form 2005, *Issue/Turn in Request*, or by memorandum.

A5.1.9. **Quantity—Short.** The quantity short is the quantity not available to support the course. Enter the base supply requisition number in the remarks column.

A5.1.10. **Cost—Unit.** Enter a unit cost for all "base investment," "base expensed," and "financing responsibility unknown" items. When the cost is not known, enter an estimated cost.

A5.1.11. **Cost—Quantity Short.** Compute this entry by multiplying "quantity short" by the "unit cost."

A5.1.12. **Remarks.** Identify course numbers where equipment is cross-utilized. For common training courses, show the equipment is cross-utilized between all "feeder" courses.

A5.2. Processing TTMS ICIS equipment list or AETC Form 120 to base supply:

A5.2.1. The TM coordinates all TTMS ICIS equipment list or AETC Form 120 generation or update processes.

A5.2.2. The TM obtains a copy of the course correlated supply equipment account inventory (R-14 listing) from the equipment custodian.

A5.2.3. The TM, working with the course TDE, determines if a new equipment list or AETC Form 120 needs to be generated based on equipment changes, additions or deletions in the course.

A5.2.4. The TM approves the new or updated equipment list or AETC Form 120.

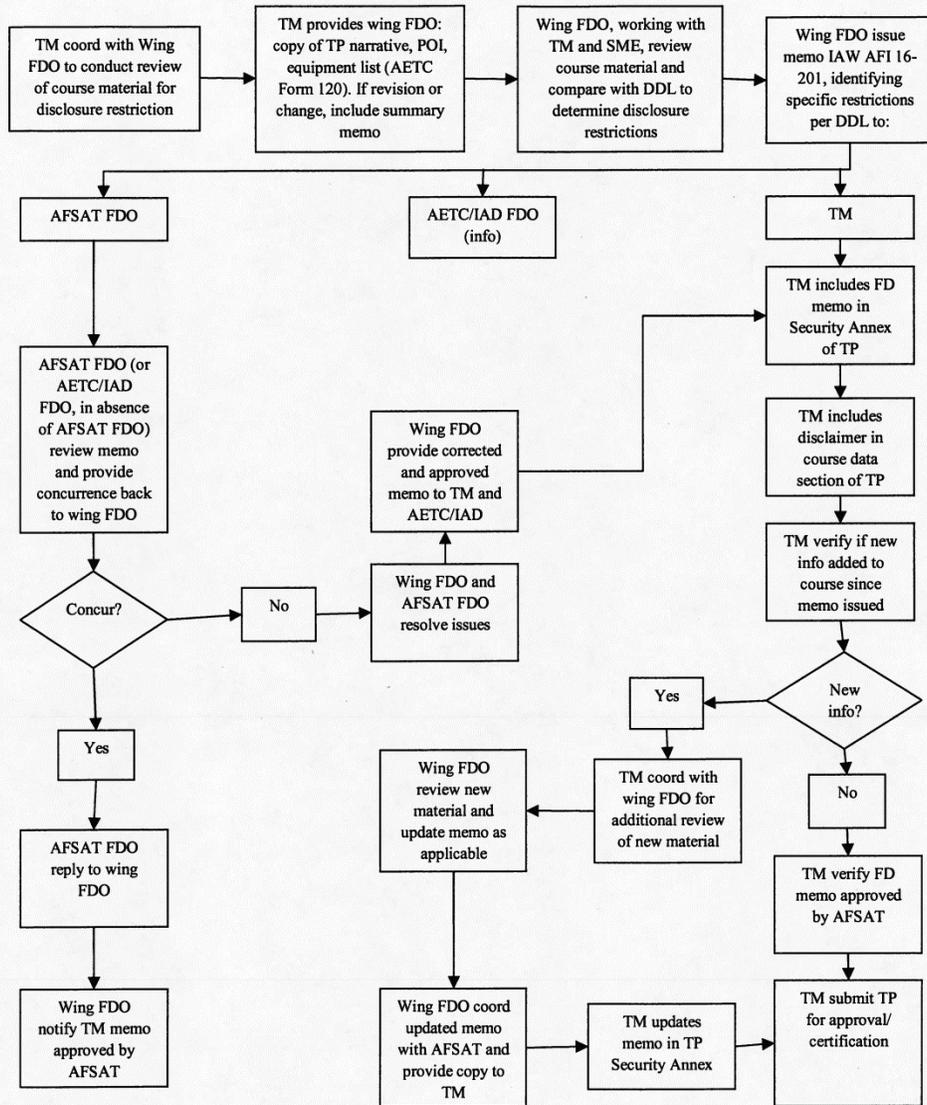
A5.2.5. The TM provides a copy of the approved equipment list or AETC Form 120 and a cover letter signed by the squadron commander or flight chief to the equipment custodian.

A5.2.6. The equipment custodian will forward a copy of the new or updated equipment list or AETC Form 120 and cover letter to base supply.

Attachment 6

FOREIGN DISCLOSURE REVIEW PROCESS

Figure A6.1. Foreign Disclosure Review Process.



Attachment 7

TABLE A7.1 SAMPLE PROFICIENCY CODE CTS

DEPARTMENT OF THE AIR FORCE	CTS XXXXXXXXXXXX XXXX
XXth Training Group (AETC)	(PDS Code XXX)
XXXXXXXX Air Force Base	January 20XX

BARE BASE POWER GENERATION (DIESEL)

1. Implement training in support of this CTS with the class beginning XXXXXX and graduating XXXXXX.
2. Purpose. This course training standard:
 - a. Establishes the training requirements using tasks, knowledge, and proficiency levels of training for course XXXXXXXXXXXX XXXX, Bare Base Power Generation (Diesel).
 - b. Provides the basis for the development of more detailed training materials, training objectives, and training evaluation instruments for the course.
3. Course Description. This course provides selected Department of Defense military and civilian personnel with the skills and knowledge necessary to operate, maintain, and troubleshoot Bare Base power generation (diesel) generators and related auxiliary support equipment.
4. Qualitative Requirements. Attachment 1 contains the tasks, knowledge, and proficiency levels referenced in paragraph 2.
5. Recommendations. Send comments and recommendations regarding AETC training quality to XX TRG/XXX, XX XXXXX, XXXXXX AFB, XX XXXXX-XXXX. Reference this CTS in correspondence. A customer information line has been installed to enable supervisors to identify graduates who may have received over or under training on task/knowledge items listed in this training standard. For quick response, call the customer information line, day or night, at DSN XXX-XXXX.

Signature Block Name, Grade, USAF
Commander

1 Atch
Qualitative Requirements

Supersedes CTS XXXXXXXXXXXX XXXX, (Date)
Prepared by: XXX TRS/XXX
Approved by and Date: XXX TRS/CC, (Date)

PROFICIENCY CODE KEY		
	Scale Value	Definition: The individual
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (extremely limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (partially proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (highly proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (nomenclature)
	b	Can determine step-by-step procedures for doing the task. (procedures)
	c	Can identify why and when the task must be done and why each step is needed. (operating principles)
	d	Can predict, isolate, and resolve problems about the task. (advanced theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (evaluation)
<p>Explanations:</p> <p>* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)</p> <p>** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.</p> <p>- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.</p> <p>X This mark is used alone in course columns to show that training is required but not given due to limitations in resources.</p> <p>Note: All tasks and knowledge items shown with a proficiency code are trained during wartime.</p>		

CTS XXXXXXXXXXXX XXXX
QUALITATIVE REQUIREMENTS

Tasks, Knowledge, and Proficiency Level

1. Safety precautions	B
2. Interpret wiring diagrams	2c
3. Types of electrical malfunctions	B
4. Troubleshooting	B
5. MEP-007B generator	
5.1. Components	B
5.2. Perform preventive maintenance	2c
5.3. Operate	2c
5.4 Test and adjust components	2c
5.5. Extract electrical control circuits	2c
5.7. Troubleshoot electrical malfunctions	2c
6. MEP-806A generator	
6.1. Components	B
6.2. Perform preventive maintenance	2c
6.3. Operate	2c
6.4. Test and adjust components	2c
6.5. Extract electrical control circuits	2c
6.6 Troubleshoot electrical malfunctions	2c
7. Electrical Distribution Centers	
7.1. Primary	A
7.2. Secondary	A
8. Start Device	
8.1. Components	B
8.2. Operate	c
9. MEP-012A generator	
9.1. Components	B
9.2. Accessory components	A

9.3. Perform preventive maintenance	2c
9.4. Operate	2c
9.5. Test and adjust components	2c
9.6. Extract electrical control circuits	2c
9.7. Troubleshoot electrical malfunctions	2c

SUMMARY OF CHANGES

This revision incorporates the MEP-806A Tactical Quiet Generator into supplemental course training. The Tactical Quiet series generators are DoD replacement units for existing MEP-004 through -012 series. Existing course material on the MEP-007B and MEP-012A generators was reduced to incorporate MEP-806A training in the current course length.

Attachment 8

SAMPLE BEHAVIORAL CTS

TABLE A8.1 SAMPLE BEHAVIORAL CTS

DEPARTMENT OF THE AIR FORCE	CTS XXXXXXXXXXXX XXXX
XXth Training Group (AETC)	(PDS Code XXX)
XXXXXXXX Air Force Base	January 20XX

BARE BASE POWER GENERATION (DIESEL)

1. Implement training in support of this CTS with the class beginning XXXXXX and graduating XXXXXX.
2. Purpose. This course training standard:
 - a. Establishes the training requirements using behavioral task or knowledge statements for course XXXXXXXXXXXX XXXX, Bare Base Power Generation (Diesel).
 - b. Provides the basis for the development of more detailed training materials, training objectives, and training evaluation instruments for the course.
3. Course Description. This course provides selected Department of Defense military and civilian personnel with the skills and knowledge necessary to operate, maintain, and troubleshoot Bare Base power generation (diesel) generators and related auxiliary support equipment.
4. Qualitative Requirements. Attachment 1 contains the tasks and knowledge referenced in paragraph 2.
5. Recommendations. Send comments and recommendations regarding AETC training quality to XX TRG/XXX, XX XXXXX, XXXXXX AFB, XX XXXXX-XXXX. Reference this CTS in correspondence. A customer information line has been installed to enable supervisors to identify graduates who may have received over or under training on task/knowledge items listed in this training standard. For quick response, call the customer information line, day or night, at DSN XXX-XXXX.

Signature Block Name, Grade, USAF
Commander

1 Atch
Qualitative Requirements

Supersedes CTS XXXXXXXXXXXX XXXX, (Date)
 Prepared by: XXX TRS/XXX
 Approved by and Date: XXX TRS/CC, (Date)

Table A8.2. Behavioral Statement Coding System

Behavioral Statement Coding System	
Code	Definition
K	Subject Knowledge Training – The verb selection identifies the individual’s ability to identify facts, state principles, analyze, or evaluate the subject
P	Performance Training – Identifies that the individual has performed the task to the satisfaction of the course; however, the individual may not be capable of meeting field requirements for speed and accuracy.
pk	Performance Knowledge Training – The verb selection identifies the individual’s ability to relate simple facts, procedures, operating principles, and operational theory for the task.
-	No training provided in the course or CDC.
X	Training is required but not provided due to limitations in resources
Each training standard element is written as a behavioral statement. The detail of the statement and verb selection reflects the level of training provided in the course.	

Table A8.3. Qualitative Requirements

CTS XXXXXXXXXXXX XXXX QUALITATIVE REQUIREMENTS Behavioral Statements	
1. Explain safety precautions when working on Bare Base power generation systems	K
2. Interpret wiring diagrams	P
3. Identify different types of electrical malfunctions	K
4. Identify steps of troubleshooting	K
5. MEP-007B	
5.1. Identify description and location of MEP-007B generator components	K
5.2. Perform preventive maintenance on MEP-007B generator	P
5.3. Operate MEP-007B generator	P
5.4 Test and adjust engine and electrical components on MEP-007B generator	P

5.5. Extract MEP-007B electrical control circuits	P
5.7. Troubleshoot electrical malfunctions on MEP-007B generator	P
6. MEP-806A generator	
6.1. Identify description and location of MEP-806A generator components	K
6.2. Perform preventive maintenance on MEP-806A generator	P
6.3. Operate MEP-806A generator	P
6.4. Test and adjust engine and electrical components on MEP-806A generator	P
6.5. Extract MEP-806A electrical control circuits	P
6.6. Troubleshoot electrical malfunctions on MEP-806A generator	P
7. Electrical Distribution Centers	
7.1. Identify basic facts and terms pertaining to primary distribution centers	K
7.2. Identify basic facts and terms pertaining to secondary distribution centers	K
8. Start Device	
8.1. Identify major components of the start device	K
8.2. Explain operating principles of the start device	pk
9. MEP-012A generator	
9.1. Identify description and location of MEP-012A generator components	K
9.2. Identify basic facts and terms pertaining to MEP-012A generator components	K
9.3. Perform preventive maintenance on MEP-012A generator	P
9.4. Operate MEP-012A generator	P
9.5. Test and adjust engine and electrical components on MEP-012A generator	P
9.6. Extract MEP-012A electrical control circuits	P
9.7. Troubleshoot electrical malfunctions on MEP-012A generator	P

SUMMARY OF CHANGES

This revision incorporates the MEP-806A Tactical Quiet Generator into supplemental course training. The Tactical Quiet series generators are DoD replacement units for existing MEP-004 through -012 series. Existing course material on the MEP-007B and MEP-012A generators was reduced to incorporate MEP-806A training in the current course length.

Attachment 9

AETC FORM 449 COURSE CHART

Figure A9.1. Example

COURSE CHART			
NUMBER XXXXXXXXXX XXXX	TITLE Bare Base Power Generation (Diesel)	PDS CODE XXX	
SUPERSEDES COURSE CHART(S) XXXXXXXXXX XXXX, XX June 20XX	APPLICABLE TRAINING STANDARD XXXXXXXXXX XXXX, May 20XX	INSTRUCTIONAL DESIGN Group Paced	
LOCATION OF TRAINING XXXXXX AFB, XX	WING/GROUP/DEPARTMENT XX TRW/XX TRG/XXX TRS/XXX		
COURSE SECURITY CLASSIFICATION UNCLASSIFIED	OPR APPROVAL DATE XXX TRS/XXX 20XX05XX	NUMBER OF ATTACHED TABLES 1	
COURSE LENGTH (19 Academic days)		WARTIME COURSE LENGTH (Academic days)	
Technical Training Technical Other Training/Administrative Time		HOURS 152	
		TOTAL 152	
REMARKS Effective Date: 20X07XX with class 20XX07XX Course Chart XXXXXXXXXXXX XXXX, XX June 20XX, applies to classes prior to XX July 20XX			
Training Manager: Signature Block Name, Grade, Office Symbol, DSN			
TABLE 1 - MAJOR ITEMS OF EQUIPMENT Refer to TTMS equipment list			

COURSE CHART (Continued)		
COURSE MATERIAL	HOURS	
Block I - MEP-007B	48	Hours TT
Orientation	1	
Safety	1	
Major System Components	6	
Operation and Maintenance	8	
Tests and Adjustments	5	
Electrical Control Circuits	11	
Troubleshooting	16	
	TOTAL	48
COURSE MATERIAL	HOURS	
Block II - MEP-806A Generator	48	Hours TT
Major System Components	8	
Operation and Maintenance	8	
Tests and Adjustments	5	
Electrical Control Circuits	11	
Troubleshooting	16	
	TOTAL	48
COURSE MATERIAL	HOURS	
Block III - MEP-012A Generator	56	Hours TT
Accessory Components	8	
Major System Components	8	
Operation and Maintenance	8	
Tests and Adjustments	6	
Electrical Control Circuits	10	
Troubleshooting	15	
Course Critique and Graduation	1	
	TOTAL	56

Attachment 10

TRAINING DEFICIENCY ALERT FORMAT

Table A10.1. Sample Format

Date

MEMORANDUM FOR XXX TRG/CC
 XXX TRW/CC
 2 AF/TTOC
 HQ AETC/A3T
 HQ USAF/XX (AFCFM)

FROM: XXX TRS/CC (or designated office)

SUBJECT: Training Deficiency Alert (Course Number and Title)

1. Training Standard: (number and date)
2. STS/CTS paragraph number(s), task(s), and proficiency potentially affected:
3. Training time: XX hours potentially deficient
4. Scheduled classes that may be affected:

Class number	Number of students	Graduation date
5. Reason for deficiency alert:
6. Corrective action necessary to avoid deficiency:
7. Point of contact: Training Manager name and grade, unit/office symbol, DSN

Signature Block Name, Grade, USAF
 Commander (or designee's title)

Attachment 11

ACTUAL TRAINING DEFICIENCY REPORT FORMAT

Table A11.1. Sample Format

Date _____

MEMORANDUM FOR XXX TRG/CC
 XXX TRW/CC
 2 AF/TTOC
 HQ AETC/A3T
 HQ USAF/XX (AFCFM)

FROM: XXX TRS/CC (or designated office)

SUBJECT: Training Deficiency Report (Course Number and Title)

1. Training Standard: (Number and Date) **Note:** If training standard is written in behavioral format, explain what training was provided.

STS/CTS Paragraph Number	Proficiency Code Level Required	Level of Training Provided
_____	_____	_____
_____	_____	_____
_____	_____	_____

2. Deficient training time: XX hours

3. Class affected:

Class number	Number of students	Graduation date
_____	_____	_____

4. Classes projected to be affected for the remainder of the fiscal year:

Class number	Number of students	Graduation date
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Reason for deficiency:

6. Corrective action taken or planned, and expected completion date:

7. Point of contact: Training Manager name and grade, unit/office symbol, DSN

Signature Block Name, Grade, USAF
 Commander (or designee's title)

Attachment 12

EXAMPLE CDC PRODUCTION PLAN

Table A12.1. Sample Format

Date (ddmmmyy)

PRODUCTION PLAN

CDC 3N0XX PUBLIC AFFAIRS JOURNEYMAN

1. The current Career Development course, 3N0XX, published in 2009, must be revised to correct inaccurate information and to deemphasize subjects/material in accordance with current public affairs programs and procedures. Also, the CDC extensively uses AFI 35-101 as its reference source; AFI 35-101 has been updated since the current CDC was published.
2. The decision to revise the 3N0XX CDC was made after discussion with the career field manager and other subject matter experts.
3. The career field conducted a Utilization and Training Workshop March 17-21, 2012. The update to the CDC will involve only minor revisions to the current information and some restructure of the content for clarity.
4. Units/sections of the CDC will be renamed and rearranged to accurately identify subject matter and better organize like information.
5. Projected CDC activation date. The customer need date is (ddmmmyy). The CDC will be activated (ddmmmyy). The submission schedule proposed accounts for the following events which impact the manuscript submission and AFCDA delivery dates:

(Identify any events such as deployment, TDY, etc., that will impact CDC production)

Manuscript submission dates for each volume are:

Volume 1 – (ddmmmyy)

Volume 2 – (ddmmmyy)

Final submission date of the terminal volume is (ddmmmyy). Upon receipt, AFCDA requires xxx days for processing. This puts the projected delivery date to the field as (ddmmmyy).

6. Address questions or concerns about this production plan to the CDC writer at (email address) or call DSN xxx-xxxx.

(CDC writer’s signature block and signature)

1st Ind, XXX TRS/CC

Date (ddmmmyy)

Approve/Disapprove

(TRS/CC signature block and signature)

Attachment 13

AETC FORM 469 CAREER DEVELOPMENT COURSE CHART

Figure A13.1. Example AETC Form 469

CAREER DEVELOPMENT COURSE CHART			DATE SUBMITTED (yyyymmdd)	APPROVAL DATE
TO XXX TRS/TTRA		FROM XXX TRS/UUPA (Msgt W. Smith, DSN XXX-XXXX)		
CDC TITLE Public Affairs Journeyman				
SUPPORTS AFSC 3N05X	TYPE OF PROJECT	<input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> REV	NEXT MAJOR SKT DATE (yyyymmdd)	
APPLICABLE STS AND DATE 3N0XX CFETP/STS 31 Oct 2012			RESIDENT TRAINING USE ESTIMATED REQUIREMENT	
ENROLLMENT PREREQUISITES This CDC is open for enrollment to anyone assigned duties in the 3N0XX career field. Enrollees must complete the basic public affairs in-residence course prior to enrollment. Satisfactory completion of all volumes is mandatory for award of AFSC 3N05X.				
MANUSCRIPT SUBMISSION DATES (Asterisk common volumes)			COMMON VOLUMES IDENTICAL TO	
VOL NO	TITLE	SUBMISSION DATE	VOL NO	COURSE NO
1	Public Affairs Career Field			
2	Public Affairs Activities, Programs, and Products			
REMARKS 1. Customer need date is NLT (ddmmmyy) 2. Expected activation date is (ddmmmyy) 3. Projected delivery date to field by AFCDA is NLT (ddmmmyy) cc: AETC/A3T TPM, AFCDA, HQ AETC A3/AAD				
NAME AND GRADE OF WRITERS		ORGANIZATION	TELEPHONE NO	
Woodrow Smith, MSgt, USAF		XXX TRS/UUPA	DSN XXX-XXXX	
REVIEWED BY				
TYPED NAME AND TITLE Johnson James, GS-12 Training Development Chief		SIGNATURE		
COORDINATED BY				
TYPED NAME AND TITLE Lindsay Ward, GS-12 Training Manager		SIGNATURE		
APPROVED BY				
TYPED NAME AND TITLE Betty Denny, Lt Col, USAF Commander, 336 TRS		SIGNATURE		

CAREER DEVELOPMENT COURSE CHART (CONTINUED)		CDC NUMBER
VOL NO 1	VOL TITLE Public Affairs Career Field	
CHAP NO 1	CHAP TITLE General Guidelines and Background	
	MAJOR TOPICS Principles and Core Competencies Public Affairs Programs	
CHAP NO 2	CHAP TITLE Public Affairs Financial Responsibilities	
	MAJOR TOPICS Commander's Responsibilities Public Affairs Officer Responsibilities Air Force Member/Employee Responsibilities	
CHAP NO 3	CHAP TITLE Communications Planning	
	MAJOR TOPICS Research Planning Execution Evaluation	
CHAP NO 4	CHAP TITLE Internal Information	
	MAJOR TOPICS Purpose Target Audience Mediums Employed Other Products and Services	
CHAP NO 5.	CHAP TITLE Media Operations	
	MAJOR TOPICS Purpose General Release of Information Information on Operational Issues Working with the Media	