DEPARTMENT OF THE AIR FORCE

AIR EDUCATION AND TRAINING COMMAND

AETCI36-2203_AETCGM3

17 May 2013

MEMORANDUM FOR 2 AF/CC AU/CC

FROM: HQ AETC/A2/3/10
1 F Street Suite 2
Randolph AFB TX 78150-4325

SUBJECT: AETC Guidance Memorandum to AETCI 36-2203, *Technical and Basic Military Training Development*

1. By order of the Commander Air Education and Training Command, this is an AETC Guidance Memorandum (GM) implementing an immediate change to AETCI 36-2203. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Air Force publications, the information herein prevails, in accordance with AFI 33-360, *Publications and Forms Management*.

2. In advance of a rewrite of AETCI 36-2203, the Attachment to this Memorandum is updated to provide guidance changes that are effective immediately. In addition to the guidance previously issued on foreign disclosure reviews and course resource estimates, this memorandum revises Chapter 13 in its entirety, includes HQ USAF and HQ AETC special interest items, and provides clarification on critical processes. Please see Attachment 1 to this memo for the specific changes. An asterisk (*) indicates newly revised material.

3. Ensure all records created as a result of processes prescribed in this GM are maintained in accordance with AF Manual 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Dispostion Schedule.

4. The policy in this Memorandum becomes void after one-year has elapsed from the date of this Memorandum, or upon publication of an interim change or rewrite of AETCI 36-2203, whichever is earlier. We appreciate everyone's cooperation and support; our POC is Mr. Anthony Merritt, AETC/A3PV, DSN 487-7477.

TIMOTHY M. ZADALIS
Major General, USAF,
Director of Intelligence, Operations,
and Nuclear Integration

1 Atch
Changes to AETCI 36-2203, 12 August 2009

cc:
AETC/A3T/IGIOT/IA
AFSAT/CC
2 AF/TTOC

Attachment 1

Changes to AETCI 36-2203, 12 August 2009

1.2.1.1.1. 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.

*1.2.1.1.2. The AETC/A3T Training Pipeline Manager (TPM) will contact appropriate TM for the requested course or courses.

1.2.1.1.3. TM will coordinate foreign disclosure review in accordance with paragraph 3.5.2.6.2.

*1.2.1.1.4. Training wing/group personnel will notify the AETC/A3T TPM of any requests for training directly from a foreign source or Air Force Security Assistance Training (AFSAT). The TPM will validate training request with AFSAT.

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

*1.4.2. **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; 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 3.5.2.11.3.1), and a foreign disclosure review, if international students will be trained (see paragraph 3.5.2.6). 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.

*2.1.3. CRE development time is within 8 weeks (40 workdays) from the tasking meeting or memo. Requesting agencies must submit a complete set of training requirements when requesting a CRE. Delays will increase CRE production time.

*2.3.3. 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. 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.

*2.3.4. 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.

2.3.12. Media and cost/benefit analysis for new or changing instructional technology application requirements estimates (including IMI, Type 6 DL, or ITV). See AETCI 36-2208, *Technical and*

Basic Military Training Interactive Multimedia Instruction (IMI) and Distance Learning (DL), for additional information.

***2.4. Coordinating CREs.** The TM or designated representative develops the CRE when tasked by HQ AETC/A3T TPM, accomplishes local coordination, and forwards it to the TPM. The TM coordinates with base civil engineer if there are facility issues. The TPM will coordinate the CRE with HQ AETC/A1MRT (HQ AETC/SGU for medical courses) and HQ AETC/A3RB for review and approval. Allow 30 working days for HQ AETC coordination. **Note:** Ensure the local trainer/equipment maintenance activity is included as part of the local coordination.

*2.5.1. If the course can be funded within the TRW, the TM develops the CTP according to Chapter 3 and submits the documentation accordingly. If not, the TM forwards the CRE to the wing/group RM and info-copies 2 AF/TTOC. The RM confirms nonavailability of local support, obtains wing/group approval, and returns the CRE to the TM. The TM emails the CRE to the TPM. The TPM will coordinate the CRE with HQ AETC/A3RB and HQ AETC/A1MRT for validation of resource estimate. Medical courses are coordinated with HQ AETC/SGU. HQ AETC/A1MRT validates the manpower requirements, and HQ AETC/A3RB 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. The HQ AETC TPM (HQ AETC SGU for medical courses) forwards the CRE to the AFCFM for resourcing. The 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.

*2.5.2. The AFCFM notifies the TPM (HQ AETC/SGU for medical courses) if funding is available. The TPM (TPM and HQ AETC/SGU for medical courses) notifies the TM. The AFCFM contacts the TPM (HQ AETC/SGU for medical courses) concerning the status of the request. At minimum, the TPM will follow up with the AFCFM for a quarterly status check until the CRE is funded or the expiration date. The TPM will update the TM and 2 AF.

3.1.3. The CTP outlines actions necessary to bring training on line, including those relative to security, foreign disclosure restrictions, course documents, student scheduling, instructional materials, manpower and personnel, facilities, and equipment for minimum and maximum training capabilities. For information on developing official manpower documents, go to AFKN on the AF Portal, select the AF COP link, and then the manpower and personnel link.

***3.2. 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.

*3.2.1. Develop a CTP for new courses, major changes (see Attachment 1 for definition) to existing courses, and when transferring courses from one base to another.

*3.2.2. Develop an ATP for minor changes (see Attachment 1 for definition) to existing courses impacting resources and/or manpower requirements or when adding motivational training.

*3.2.2.1. The ATP includes a summary of changes and all updated annexes.

3.5.1.2.5. Foreign disclosure disclaimer if foreign military/international students are to be trained. Example: "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."

3.5.1.4. **Total Programmed Entries and Scheduling Constraints.** Specify total programmed entries for the FY when the course will be implemented, and briefly describe class or student scheduling constraints, such as group sizes or minimum interval. Use TRQI requirements, including NPS student programmed attrition, as the total programmed entries baseline. If foreign military/international students will be trained, include a foreign disclosure memorandum as part of the Security Annex. Describe in this section other actions necessary to accommodate foreign military/international students (such as computer access authorization processes).

3.5.2.6. **Security Annex.** Provides for control of classified information used in a course. Annex also 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.

3.5.2.6.1. The foreign disclosure review process (para. 3.5.2.6.2.) will be accomplished on any new course or any existing course during revision or change if foreign military/international students are to be trained.

3.5.2.6.1.1. 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.

3.5.2.6.1.2. If no MX20 quota or instance of foreign students being trained appears in the history or outyears, a foreign disclosure review is not required.

3.5.2.6.1.3. 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.

3.5.2.6.2. Foreign Disclosure Review Process (see Attachment 17)

3.5.2.6.2.1. TM will coordinate with the Wing FDO to conduct review of course material for foreign disclosure restrictions.

3.5.2.6.2.2. TM provides the wing FDO with a copy of the CTP 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.

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

3.5.2.6.2.4. 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 AFSAT FDO, with copy to AETC/IAD FDO, and TM.

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

3.5.2.6.2.6. TM will include disclosure memorandum in CTP Security Annex. For courses not requiring training plans; e.g., Type 2, 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 AFSAT FDO and AETC/IAD FDO. TM will update the memorandum in the CTP 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 CTP Security Annex or course record set, as applicable. Pen and ink annotations are acceptable.

3.5.2.6.2.7. TM will include a foreign disclosure disclaimer in course data section of the CTP. Reference paragraph 3.5.1.2.5. for a sample disclaimer.

3.5.2.6.2.8. 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."

3.10.7.6. Ensure 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.

*4.4.6.3.3. 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 OSR training extract STS factor printout.

*4.4.6.3.4. Use OSR 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.

*4.4.6.3.5. Use OSR 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.

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

*4.4.6.3.7. Provide rationale (OSR data, evaluation feedback, or user input) as 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.

*6.1.1. Formal measurement/assessment is required in all courses. Formal measurement includes, but is not limited to, written tests, performance tests, and progress checks. 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, and open-ended question assessments.

*6.1.2. To graduate, each student must successfully pass all formal measurement devices. An exception would be a performance objective or written measurement not taken because of a documented training deficiency. Instructors may grant international students additional time to complete measurement devices when language difficulties dictate.

6.10.4. Ensure measurement devices include a foreign disclosure disclaimer if foreign military/international students are to be trained. Example: "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."

7.2.4.8. Include foreign disclosure disclaimer if foreign military/international students are to be trained. Example: "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."

7.5.8. Ensure foreign disclosure disclaimer is included on the course chart, as applicable.

*8.1.1.6. Training material and resource conservation.

*8.1.1.9. Sexual harassment and assault reporting, professional and unprofessional relationships, and hazing.

*8.1.1.9.1. Describe required standards of conduct for trainees, faculty, and staff. Ensure AETCI 36-2909, *Professional and Unprofessional Relationships*, is included as part of the student instructional material. Refer to AETCI 36-2909 for examples of professional and unprofessional relationships between trainees, faculty, and staff. Encourage students to follow the chain of command to resolve issues, where practical. If the unprofessional conduct involves someone in the student's chain of command, inform 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 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.

*8.1.1.9.2. Ensure the Lesson Plan Part II includes the following statement under sexual harassment and assault reporting: "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."

*8.2.5.1.5. **Air Force Doctrine.** Air Force instructors (active duty and civilian) will introduce Air Force basic doctrine, as referenced in AFDD 1, *Air Force Basic Doctrine, Organization, and Command*, to Air Force students in all initial skills courses. Throughout the course, instructors will "weave in" information about basic doctrine, using AFDD 1 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. Refer to AFI 10-1301, *Air Force Doctrine*, for additional information.

*8.2.5.1.6. **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.

8.2.5.5. Include foreign disclosure disclaimer in POI instructional guidance 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."

*8.2.13. When two or more courses have identical contents (piggyback courses or an MTT), identify in a separate memo which is the mother course and which piggyback courses will be taught using the parent course documents. Initial skills piggyback courses attended by both Air Force officer and enlisted personnel require separate TTMS course builds and flow. 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.

8.3. POI Responsibilities. The training group or designated level within the group: Provides POI development guidance, expertise, and oversight; ensures foreign disclosure disclaimer is included in POI instructional guidance, where appropriate; prints and distributes POIs; approves new/revised POIs and POI changes prior to use (curriculum manager is 982 TRG authority); maintains electronic or paper POI record sets (it is not necessary to maintain a copy of a published document and camera-ready copy of the same document).

*8.7.3.4. Personalized LP information is accurate, applicable, adequate, and personalized content is consistent with Air Force core values, policy, and guidance. Ensure training programs containing content on radicalism, cultural awareness, and counterterrorism exhibit cultural sensitivity and respect for religion.

*8.7.9. 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.

*8.7.10. For courses taught entirely 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, policy, and guidance.

***8.8. LP Responsibilities.** TRGs will:

*8.8.1. Provide LP development guidance, expertise, and oversight.

*8.8.2. Ensure 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. **Note:** Provide this guidance to guest lecturers and review guest lecturer materials prior to their presentation to ensure consistency with Air Force core values, policy, and guidance.

*8.8.3. Specify coordination and approval procedures.

*8.8.4. Establish LP currency control procedures and maintain all LP record sets.

9.4.11.3. Annotate record if foreign disclosure restrictions apply.

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

9.5.1.2. 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.

*9.5.1.2.1. 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 US agency."

9.5.1.2.2. 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."

9.5.1.2.3. 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 US Government commitment to sell, loan, lease, co-develop or co-produce defense articles or provide defense services is implied or intended."

9.8.2.9. Foreign disclosure disclaimer, where applicable. Example: "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."

*10.2.4. Mother course validation validates piggyback course if the piggyback course has not changed.

***Chapter 13**

***LOW FLOW COURSE REVIEW**

***13.1. Purpose.** The low flow course review verifies courses entering fewer than 75 Air Force students in the FY are cost effective and can be fully justified. Consider mother/piggyback courses together.

***13.2. Procedures:**

*13.2.1. TM conducts the review annually on all low flow courses during the last quarter of the FY (July – September) and submits a report to HQ AETC/A3T TPM. **Note:** For courses in validation when a low flow course review is due, conduct the review as part of the validation process.

*13.2.2. Report will include the following information:

*13.2.2.1. Course purpose such as initial skills, advanced or supplemental training.

*13.2.2.2. Requirement for course. Examples: Legal, AF required certification, SEI, assignment, etc.

*13.2.2.3. Criticality of skill/knowledge.

*13.2.2.4. Actual student entries for the previous FY.

*13.2.2.5. Actual student entries to date for the current FY.

*13.2.2.6. Scheduled entries for the current FY.

*13.2.2.7. Scheduled entries for the next FY.

*13.2.2.8. Manpower. Instructors assigned per UMD; family grouped instructors and fractional cost, if applicable. **Note:** Provide FAC and OSC for manpower authorizations.

*13.2.2.9. Equipment. Dedicated equipment, equipment cross utilized with other courses, and equipment maintenance costs.

*13.2.2.10. Facilities. Standard facilities needed, specialized facilities needed, facilities cross utilized with other courses.

*13.2.2.11. O&M costs (Bench stock, expendable supplies, fuel, etc.).

*13.2.2.12. Possible alternate training methodology for all or part of course.

*13.2.2.13. Recommendation to discontinue, revise, or maintain course in current state. Provide rationale to support recommendation.

*13.2.3. The TPM reviews the report, calculates applicable TDY-to-school costs using HQ AETC/A3R data, and prepares command recommendation memorandum for HQ AETC/A3T signature.

*13.2.4. The TPM forwards the signed memorandum to the AFCFM with a courtesy copy to 2 AF/TTOC, HQ AETC/SGU (for medical courses), and AFSAT (if international students trained).

*13.2.4.1. If AFCFM concurs with recommendation, the TPM will notify the TM of decision and task TM to discontinue the course, as applicable.

*13.2.4.2. If AFCFM nonconcurs with recommendation, the TPM will evaluate the AFCFM's justification, resolve any issues, and notify the TM of the final disposition of the course within 60 calendar days.

***13.3. Responsibilities.**

*13.3.1. HQ AETC/A3T will:

*13.3.1.1. Review recommendation and forward command recommendation on disposition of course to AFCFM.

*13.3.1.2. Evaluate AFCFM nonconcurrence and resolve any issues with AFCFM.

*13.3.2. The TRG or designated level will:

*13.3.2.1. Establish an annual low flow course review program.

*13.3.2.2. Submit reports to HQ AETC/A3T TPM.

***15.1. Purpose.** The annual review of technical training (ARTT) provides a thorough, periodic review of all courses within each officer and enlisted specialty's continuum of training. The ARTT is designed to generate an in-depth look at all courses across all skill levels to ensure they include only relevant skills and knowledge, do not unnecessarily duplicate training, and satisfy customer requirements. The ARTT is accomplished using a team concept with team members knowledgeable in training processes and procedures. The ARTT team should include instructor supervisors, course supervisors, equipment account custodians, TDE personnel, instructional technology unit specialists, TMs, training evaluators, training resource specialists, flight chiefs, and TRS commanders. A team does not need each of these members, but a typical team will include those experience types. **Note:** BMT conducts a triennial review, following the same rules on a 3-year cycle.

*15.2.2. Scrutinize the TS, CC, POI, LP, resident training materials, student measurement, FEQs, and course validation data (if available) to determine if courses meet customer requirements; whether training is unnecessarily duplicated; if course material depth and breadth expands from one skill level to the next; whether courses maintain a clear relationship with others in the same family group; and whether courses are still needed. Review course equipment lists to ensure equipment supports training objectives. TMs will review TPS data entries for all courses under review to ensure parameters in TPS match the CTP. Also, review the CTP and any applicable ATPs to ensure consistent and accurate information within the documents. If course trains international students, ensure foreign disclosure memorandum is current for latest course revision/change.

***Attachment 1**

***GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

****Abbreviations and Acronyms***

***CMI**—classified military information

***CUMI**—controlled unclassified military information

****Terms***

***Abbreviated Training Plan**—Means to make minor changes in resource requirements and/or add motivational training to 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.

***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.

***Maltraining**—Deleted.

***Maltreatment (Physical)**—Deleted.

***Maltreatment (Verbal)**—Deleted.

***Student Man-Year**—Manpower resource used to compensate for lost duty time due to training (initial skills pipeline and PCS course students only). Refer to AETCI 38-202 for additional information.

***Support Equipment**—Equipment items that enhance training and provide indirect support of training objectives.

***Training Equipment**—Equipment items necessary to meet training objectives, usually items students are being trained to use, maintain, or operate.

***A3.2. Step 1.** Develop a CTP for new courses, major changes to existing courses, or when transferring courses from one base to another. If parameters remain the same, the gaining TM makes TPS changes, the losing TM discontinues the old course, and the gaining TM loads the new parameters. **Note:** Use an abbreviated plan for minor changes to existing course impacting resources and/or manpower requirements or when adding motivational training.

A3.4. Step 3. The TM assembles the CTP (including planned implementation date), coordinates with all base agencies according to local established guidelines, and forwards to the TRG resources chief. **Note:** TM ensures foreign disclosure completed and memorandum is included in CTP if international students are to be trained. TMs should follow up with applicable agencies as necessary to encourage timely response and to meet established CTP processing timelines.

***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 TRS or identifies any shortages.

*A4.1.2.1. If the equipment is available in the TRS, the TM completes the CTP logistics annex.

*A4.1.2.2. If equipment is not available in the TRS, the TM contacts the TRSS 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 TRSS POC instructs the TM to proceed with developing the equipment annex.

*A4.2.2. If the equipment is not available, the TM contacts the TPM (HQ AETC/SGU for medical courses) to check AETC equipment availability, and courtesy-copies the TRSS POC. HQ AETC/SGU queries other MAJCOMs and AETC bases for medical course equipment requirements.

***A4.3. AETC.**

*A4.3.1. If the equipment is available in AETC, the TPM notifies the TM, with courtesy copy to the TRSS, 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 TPM solicits HQ Air Force Materiel Command (AFMC) assistance.

***A4.4. AFMC.**

*A4.4.1. If the equipment is available in AFMC, the TPM instructs the TM to develop the logistics annex using this information.

*A4.4.2. If the equipment is not available in AFMC, the 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 TPM. The TPM notifies the TM to develop the logistics annex with this information.

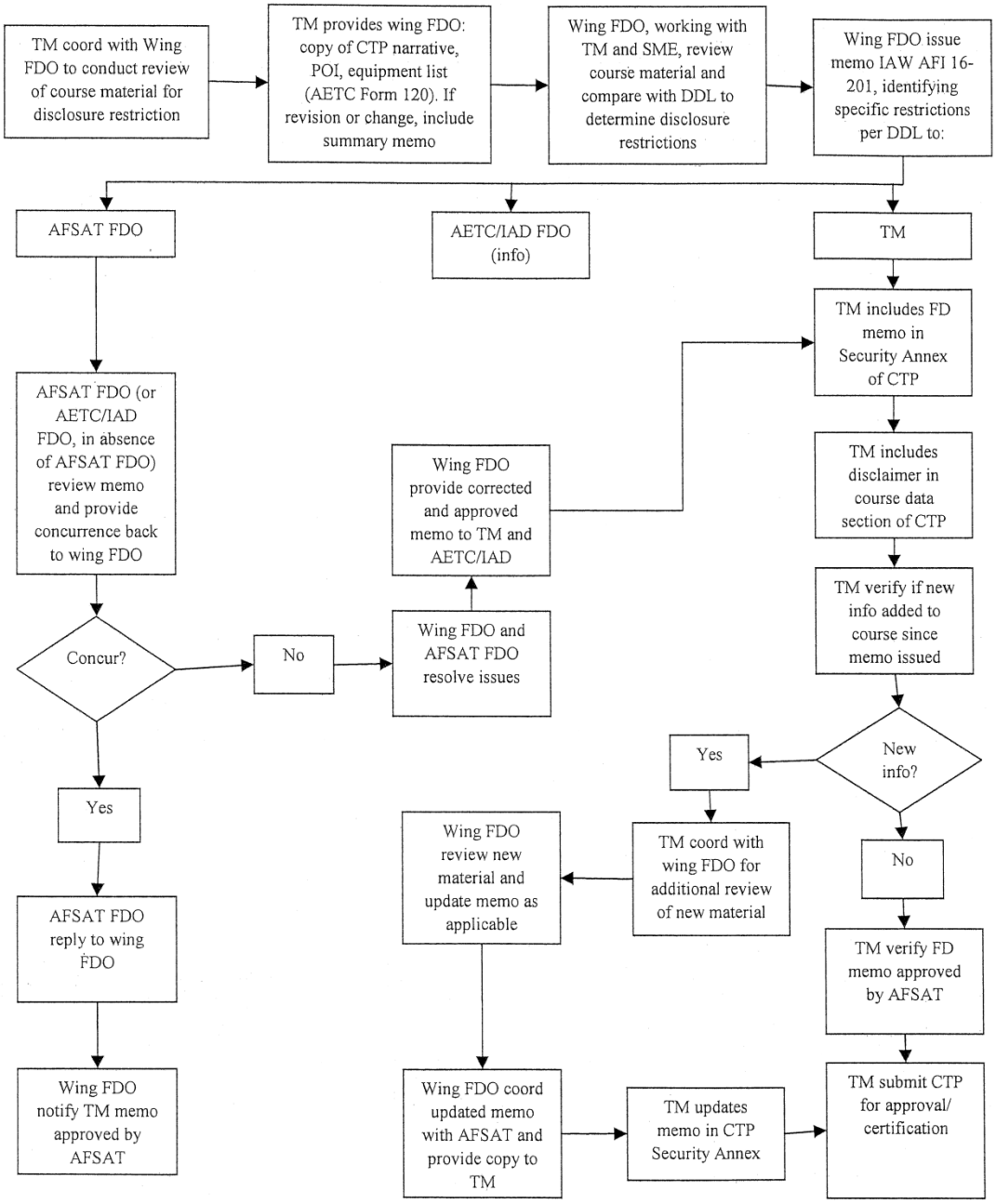
*A4.5.3. If the equipment and/or funding is not available, the AFCFM, TPM, HQ AETC/A3R, and TM look for alternatives or workarounds. The AFCFM, TPM and HQ AETC/A3R will coordinate the out-of-cycle funding training requests through AF/A1PT. Training is not implemented until resourced or workarounds/alternatives are coordinated and the training plan certified.

*A4.5.4. When equipment or funding becomes available, the 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.

***Attachment 12 DELETED**

Attachment 17

Foreign Disclosure Review Process



BY ORDER OF THE COMMANDER AIR EDUCATION AND TRAINING COMMAND

AETC INSTRUCTION 36-2203

12 AUGUST 2009

Incorporating Change 1, 14 OCTOBER 2010

Personnel

TECHNICAL AND BASIC MILITARY TRAINING DEVELOPMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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RELEASABILITY: there are no releasability restrictions on this publication.

OPR:	HQ AETC/A3PV	Certified by: HQ AETC/A3P (Ms. B. Molina)
Supersedes:	AETCI36-2203, 8 March 2001	Pages: 135

This instruction implements AFPD 36-22, *Air Force Military Training*. 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 19 AF, the 367 Training Support Squadron (TRSS) or the Inter-American Air Forces Academy (IAAFA). Chapter 12 and Chapter 13 do not apply to basic military training (BMT). Reporting requirements in this instruction (paragraph 4.7.8.3.5 and Chapter 11) are exempt from licensing according to AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*. 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 Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims**/. See Attachment 1 for a glossary of references and supporting information. Submit requests for waivers according to guidance in AFI 33-360, *Publications and Forms Management*. Commanders responsible for implementing this instruction may supplement it to establish specific implementation procedures. Send all proposed supplements to HQ AETC/A3PV, 1 F Street, Suite 2, Randolph AFB TX 78150-4325, for coordination prior to publication. Submit recommended changes and questions on AF Form 847, *Recommendation for Change of*

Publication, through the numbered Air Force (NAF) to the office of primary responsibility. Submit requests for waivers to any requirement stated in this instruction in accordance with guidance in AFI 33-360, *Publications and Forms Management*.

Note: A waiver remains in effect until the approving official cancels it in writing, the publication is revised, or the waiver expires. When the publication is revised, the requester must renew the waiver.

SUMMARY OF CHANGES

This IC updates the routing of waiver requests, suggested changes and proposed supplements (Opening paragraph); modifies Table 1.1, initial skills courses no longer require a new PDS code for major changes; identifies the link to the AETC course numbering system (paragraph 1.4.); requires course control documents and a limit on Type 2 courses (paragraph 1.4.2.); clarifies course training plan (CTP) certification procedures (paragraph 3.4.2.); clarifies CTP requirements for field training courses (paragraph 3.5.1., 3.5.1.3.2.); clarifies the Manpower and Safety Annex requirements (paragraph 3.5.2.2. and 3.5.2.9.); incorporates GM 1 to AETCI 36-2203 requiring courses to conduct and document an Risk Management assessment using the guidance described in AFPAM 90-902, Operational Risk Management (ORM) Guidelines and Tools (paragraph 3.5.2.11., 3.5.2.11.1. through 3.5.2.11.3.2., 8.2.5.1.4. through 8.2.5.1.4.3., and 8.7.13., and Figure 8.1); clarifies procedures for Type 2 courses (paragraph 3.7.5.1.)**;** requires formal courses developed and conducted by AETC including Type 2, Orientation, Symposium, Familiarization, Seminar, Refresher to have training standards, course charts, a plan of instruction part I and II, a measurement plan and measurement devices by removing the exemptions (paragraph; 1.4.2., 4.5.2., 6.1.2., 8.2.1., 8.2.1.1., 8.2.1.2., 8.2.1.3., 10.7.); adds RM policy reference (Attachment 1); assigns responsibility for moving courses to TTMS within 30 days of course start (paragraph 3.8.2., 3.8.3.); updates course discontinuation procedures (paragraph 3.9.); updates objective guidance (paragraph 5.2, 5.3.); changes waiver to the standard training day approval procedures (paragraphs 7.1.2., 7.5.1.); updates distribution (paragraph 8.4.); clarifies MIR waiver procedures (paragraph 8.6.3.); clarifies station lesson plan procedures (paragraph 8.7.2.3.); clarifies procedures to request training materials (paragraph 9.5.1. through 9.5.3.); clarifies supersession line procedures (paragraph 9.8.2.7.); clarifies procedures for maintaining training materials (paragraph 9.8.3.); updates office symbols for CTP routing (Attachment 3 and Figure A3.1.); clarifies Course Control Document Decision Matrix (Attachment 12); adds Battlefield Airman RM Assessment Worksheet (Attachment 16).

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Chapter 1

GENERAL INFORMATION

1.1. Training Data Systems. The technical training management system (TTMS) is a data system used to track student progress through Air Force technical training courses. TTMS data flows to the training planning system (TPS) and on to the personnel data system (PDS). TTMS consists of many databases, two of which (student management database and course design and development database) are critical to accurately report student data to those interfaced systems (TPS and PDS). Course design parameters flow to the student management database and feed other data systems. For this reason, data entered into the course design and development database must accurately reflect course parameters. Career development courses (CDC) and specialized courses (SC), and student records are managed in the course development, student administration, and registrar system.

1.1.1. **TTMS and TPS.** Where installed and operational, use TTMS and TPS for all unclassified training related functions, including course development and delivery, instructor and student management, resource management, and product evaluation. Enter all unclassified course information necessary to complete adequate student accounting when developing courses that include classified information in the TTMS course design and development database. TTMS and TPS automated products may be administratively edited for such formatting issues as line spacing, white space, and font size. Changes that affect course parameters are not permitted. Forms generated electronically by these systems may be used in lieu of prescribed forms (except AETC Form 150, *Field Evaluation and Examination Answer Sheet* [OCR], and AETC Form 1200, *OMR Classroom Answer Sheet*). Locally developed automated information systems will not duplicate functionality found in TTMS and TPS.

1.1.2. **ETCA.** The education and training course announcements (ETCA) site, **https://www.my.af.mil/etcacourses**/, includes specific major command (MAJCOM) information for formal training courses conducted or managed by MAJCOMs and field operating agencies (FOA). The ETCA includes courses conducted or administered by the Air Force and reserve forces, and serves as a reference for the Air Force, DoD, other military services, government agencies, and security assistance programs. Course personnel use ETCA maintainer to maintain information displayed in ETCA. All technical training course announcements in ETCA will include the following note: **NOTE:** Ensure AETC/FMAM has coordinated on all AETC formal training course changes that affect courses added/deleted, course length/location changes, or excess baggage or travel directions (any change that has a potential financial impact).

1.1.2.1. **ETCA Maintainer.** Training managers (TM) will maintain current, correct, updated course point of contact (POC) and general information on the ETCA Web site. TMs will use ETCA maintainer, the ETCA software user manual, and procedures on the ETCA Web site to initiate, maintain, and remove course announcements. Review and update course announcements annually, as required, during the annual review of technical training (ARTT). Whether or not announcement changes are required during the

ARTT, TMs will check the "update" button so that the "last changed" date will update. **Note:** HQ AETC/A3PZ requires the "last changed" date as a quality review measure.

1.2. Training Requirements. The major training requirement areas are initial operation and maintenance of new or changing systems; replacement personnel to operate, maintain, and support existing systems; and personnel in various specialties to be trained for administrative, management, and service functions. All nonprior service (NPS) enlisted personnel attend basic military training (BMT) prior to entering specialty training. Required training includes basic military knowledge, knowledge of principles in a scientific or technical area, and complex operational and maintenance tasks. Specialty training includes initial, advanced, lateral, supplemental, special, and field training. **Note:** The BMT Review Committee (if out of cycle, HQ USAF/DPE) determines BMT training requirements. The 737 TRG commander approves the curriculum design.

1.2.1. AETC provides both initial skills and supplemental training, based on needs and requirements established by other agencies. Statements of training requirements identify how many people will be required, the fiscal year (FY) training will be required, what skill each person must possess, and when each person will be needed. AETC provides formal training using the most cost-effective instructional methods available without compromising quality or standardization of job performance.

1.2.1.1. HQ USAF identifies the trained personnel requirements (TPR) each enlisted Air Force specialty (AFS) needs to maintain operational manning requirements. Air Staff provides AETC with the numbers of nonprior service (NPS), prior service (PS) and retrainee students, by FY, to meet the TPR. Similar information is identified for officer training. AETC also accommodates training requests from Air Force major commands (MAJCOM), ANG, AFRC, other U.S. military services, foreign military students, and other Department of Defense (DoD) agencies.

1.2.1.2. AETC also receives training requests for non-initial skills training. Using agencies must submit their training requests annually to Air Staff. Air Force Form 898, *Field Training Requirements Scheduling Document*, is used to identify Type 4 training requirements (prescribed in AFI 36-2201, Volume1, *Training Development, Delivery and Evaluation)*. Type 6 Distance Learning (DL) requirements are identified through annual screening (data call) initiated by Air Staff concurrently with the Mission Readiness Training Program (MRTP) screening.

1.2.1.3. Together, the TPR and the above training requests make up total student training requirements for AETC initial skills and non-initial skills courses.

1.2.2. TMs schedule training requirements in TPS. Program control documents (PCD) are developed as reports from TPS data. HQ AETC/A3P uses PCDs in response to established training requirements. These documents specify the required number of entries and graduates for all types of formal training, as well as class entry date schedules and sizes. PCDs also provide data needed to derive instructor and other training support requirements.

1.3. Course Implementation and Modification. Submit new or modified BMT training requirements through MAJCOMs for BMT Triennial Review Committee approval. Out of cycle requirements go through HQ AETC/A3T to HQ USAF/A1DL for approval.

1.3.1. Courses that must be restructured for the international community, and requirements for a new weapon system, new equipment or new personnel, drive new course implementation. Modifying an existing course, however, is the most common action. Classification changes, occupational survey reports (OSR), field evaluation questionnaire summaries (FEQS) and faculty and staff analyses result in existing course modifications.

1.3.1.1. Where TTMS is installed and operational, use the course design and development database for all unclassified new courses and revisions, including those that are less than a 20 percent change. Include training standards (TS), course charts (CC), plans of instruction (POIs), lesson plans (LPs) to the teaching step level, and AETC Form 120, *Training Equipment List*.

1.3.1.2. When using the course design and development database to develop courses that include classified information, enter only unclassified block and course titles.

1.3.1.3. When a course is revised, design and develop the entire course in the course design and development software and move to the student management database. The data in the course design and development database and the student management database must mirror each other, except minor changes (which must be added to the databases no later than the next major change).

Table 1.1. Course Development Requirements

Item	A	B	C	D	E
	Development Type	Use TTMS	New PDS Code	New TTMS Revision	Notes
1	New course	Mandatory	Required	Yes	1
2	Major revision (Non EIS/OIS courses)	Mandatory	Required	Yes	1,2
3	Minor Revision	Mandatory	No	No	
4	Major Revision (EIS/OIS courses)	Mandatory	No	No	3
5	New Course	Mandatory	Required	Yes	4
6	Major revision	Mandatory	No	Yes	2,5

Notes:

1. Excludes 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. A major revision (For Non Enlisted/Officer Initial Skills courses) is a 20 percent change (including reductions) in course content and/or course length. Resequencing objectives or blocks, without changing content, does not constitute a 20 percent revision.

3. For EIS/OIS courses (AB, AL, AQ, OB, OL, OP, OQ in position 3 and 4 of the course number) that require any changes to the course content and/or course length a new PDS code is not required.

4. For EIS/OIS (AB, AL, AQ, OB, OL, OP, OQ in position 3 and 4 of the course number) courses a "new course" is defined as a change to the 5 digit enlisted or 4 digit officer AFSC identifier within the course number, i.e. E3ABR2E231-00AA, E3OZR13M3-00MA **(**EXAMPLE-New PDS code required when E3ABR2E231-XXXX changes to E3ABR3D031-XXXX).

5. New PDS code is not required for EIS/OIS (AB, AL, AQ, OB, OL, OP, OQ in position 3 and 4 of the course number) course Major Revisions; positions 12-15 of course number will be changed accordingly to identify course changes, typically position 15 incrementally to identify revisions i.e. E3ABR3D031-00AA changes to E3ABR3D031-00AB.

1.3.2. The decision to implement a new course or modify an existing one comes from a utilization and training workshop (U&TW), training planning team (TPT) or other directive conference, or service test or other types of feedback. See AFI 36-2201, Volume 5, *Air Force Training Program Career Field Education and Training*, for U&TW procedures. U&TWs are conducted to identify AFS education and training needs, to develop and review AFS training programs, and to develop the career field education and training plan (CFETP). TPTs and other conferences are convened to identify training requirements for courses not covered by a CFETP. Such conferences normally result in major changes to one or more courses that support an AFS. The Air Force career field manager (AFCFM) and the HQ AETC training staff officer (TPM) co-chair a U&TW, and the AETC TM hosts it. U&TWs normally include the career development course (CDC) writer, MAJCOM representatives, the Air Force Personnel Center (AFPC) resource manager (RM), the TM, training development element (TDE) representatives, a system program office representative (if appropriate), an AU/A4L representative, a training evaluation representative, an instructional technology representative, subject matter experts (SME), an Occupational Measurement Squadron representative, and a local manpower representative. They consider utilization patterns, the specialty training standard (STS) or the course training standard (CTS), the CFETP, existing training, and new or outdated technology to define a new or revised STS, CTS, or CFETP that would dictate the need for a new or modified course. The AETC TPM and TM will incorporate taskings and associated suspense dates in the U&TW minutes.

1.3.3. Customer feedback (without a U&TW) may drive existing course modification, as long as STS/CTS requirements are met. To add or delete line items or to change knowledge or proficiency codes, AETC TMs will submit recommended changes to the AETC TPM who coordinates with and secures approval from the AFCFM. CTS/STS line items will not be changed without full coordination or U&TW action. Coordinate joint service course changes according to AFI 36-2230(I), *Interservice Training*. TMs maintain AFCFM coordination and proposed course change approval documentation.

1.3.4. Once new or modified training standards (TS) are levied, or direction to develop or modify a course is established, the AETC TM manages training development and implementation, and identifies resources needed to bring training online. The AETC 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.

1.4. Formal Technical Training Course Types. The 15 types of formal training described in paragraphs 1.4.1 through 1.4.15 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 COP: **https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AE-ED-00-79**

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.

1.4.1. **Type 1, Special Contract Training**. One-time or limited nature; contracted with civilian industrial or educational institutions; includes commercial off-the-shelf courses; 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 (TRW) or training group (TRG) to develop AETC courses. See AETCI 36-2219, *Type 1 Training*, for specific information.

1.4.2. **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; 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) and a Risk Management (RM) assessment (see paragraph 3.5.2.11.3.1). 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.

1.4.3. **Type 3, Resident Regular Training.** AFS-centered training of a continuing nature; conducted at an AETC base, location, or station. It 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 skill multiphased AFSC awarding courses.

1.4.4. **Type 4, Field Training:**

1.4.4.1. Technical training conducted at operational locations may be delivered by a field training detachment (FTD) or a field training team (FTT).

1.4.4.2. 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. An FTD may use the area concept to provide direct training support. This concept provides field training to more than one base, location or station using the capability of a single FTD.

1.4.4.3. FTTs are teams of FTD instructors who conduct training at an operational base using that base's facilities. Mobile training sets may be used. Teams normally include trainers, training aids, and operational equipment designed for field use but used to support maintenance training.

1.4.5. **Type 5, Training by Other U. S. Government Agencies (Excludes Interservice Training Review Organizations [ITRO]**). Not consolidated, collocated or an executive agent; is conducted by an Army, Navy, Air Force agency or unit other than AETC, or other government agencies inside or outside of the Department of Defense (DoD).

1.4.6. **Type 6, DL.** Formal training developed by a TRW, TRG, or a contractor; for export to students at bases of assignment; designed for students to learn without AETC course-qualified instructor on-site expertise. See AETCI 36-2208, *Job Site Training,* for specific DL information, and AETCI 36-2209, *Development and Maintenance of Interactive Multimedia Instruction (IMI),* and AFI 36-2201, Volume 4, *Managing Advanced Distributed Learning (ADL),* for information on interactive courseware development.

1.4.7. **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, and usually consist of trainers, training aids, and operational equipment designed for field use but used to support training.

1.4.8. **Type 8, ITRO.** Consolidated course with the Air Force as lead service. Course faculty includes fair share instructor representation from participating services and the host service, and usually a mixture of service personnel who teach the course.

1.4.9. **Type 9, ITRO.** Consolidated course with another service as lead. Course faculty includes fair share instructor representation from participating services and the host service, and usually a mixture of service personnel who teach the course.

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

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

1.4.12. **Type C, ITRO.** Air Force collocated – an Air Force course on another service installation.

1.4.13. **Type D, ITRO.** Other service collocated – another service course on an Air Force installation.

1.4.14. **Type W, Wartime Training Course.** Course focus is on different tasks and/or equipment trained for a wartime scenario; the wartime version of a course will have a different course number and require a separate build in the course design and development database. The wartime course must flow to the student management database no later than (NLT) 30 days prior to the initial class start date.

1.4.15. **Type M, Basic Military Training.** Initial Air Force entry training The BMT mission is to transform civilian recruits into disciplined, dedicated, physically fit Airmen who have an expeditionary mind-set, foundational knowledge and skill in fundamental combat and mission related tasks required of all Airmen, and are committed to values required for success as Airmen warriors in the United States Air Force.

1.5. Specialty Training. Specialty training is a planned, but primarily informal, training program designed to qualify officers and enlisted members to perform in an AFS through self-study, formal and informal courses, and job proficiency training. See AFI 36-2201, Volume 1.

1.5.1. **Job Proficiency Training.** Job proficiency training is informal training achieved while working in a duty assignment under the supervision of a qualified person. See AFI 36-2201, Volume 3.

1.5.2. **Career Knowledge Development.** The specialty training program is based on the premise that trainees need certain knowledge to develop the versatility and flexibility required to transition from one kind of equipment or system to another. This knowledge is not related to specific equipment or systems, but to mastering principles and theory, and to developing fundamental understanding. Applying this knowledge to specific job assignment tasks develops job proficiency. For enlisted personnel, the key to career knowledge is carefully planned and developed technical training materials called CDCs.

1.5.3. **CDCs.** In the Airman's specialty training process, CDCs provide the subject and task knowledge for a given AFS skill level. Additionally, CDCs may be used as study references in support of the Weighted Airman Promotion System (WAPS). As implied, airmen acquire the knowledge required for a particular AFS skill level through self-study of the relevant CDCs. After completing all CDC volumes, Airmen take a course examination (CE) that measures required knowledge comprehension. CDCs may be used as prerequisite material for other informal training. CDCs are required at the discretion of the AFCFM. The STS controls CDC content.

1.6. FTD Operation:

1.6.1. FTDs provide Type 2, 3 and 4 training for host bases and MAJCOMs as described in AFI 36-2201, Volume 1.

1.6.2. Each detachment or team is associated with particular weapon systems and support equipment. Teams qualify personnel on new equipment, techniques, and procedures; acquaint personnel with specific systems; and keep personnel informed of changing concepts and needs. FTDs offer instruction in aircraft, small missiles, avionics, armament, engines, accessories and other skills and tasks as requested by the host and approved by 982 TRG.

1.7. Community College of the Air Force. The Community College of the Air Force (CCAF) is a multi-campus, federally chartered institution. CCAF confers the Associate of Applied Science degree as part of Air University (AU), which is accredited through the Southern Association of Colleges and Schools Commission on Colleges (SACS/COC). CCAF was created to meet Air Force enlisted personnel educational needs, including those of Air National Guard members and Air Force Reserve Command Categories A and B enlisted members. It is the first, and only, military agency with the authority to award associate degrees to enlisted members.

1.8. Instructional System Development:

1.8.1. 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*. 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/A3I provides guidance on applying ISD to technical training. Guidance is also available on advanced distance learning (ADL) and sharable content object reference model (SCORM) specifications and standards.

1.8.1.1. 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, AETCI 36-2208, and AETCI 36-2209. Consider various methods of training delivery, including IMI, distance learning, and technology insertions, during all course development projects and major revisions (see AETCI 36-2208 and AETCI 36-2209 for more information).

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

1.8.2. Responsible organizations are as follows:

1.8.2.1. HQ AETC/A3I establishes command ISD policy and procedures (See AFMAN 36-2234 and AFH 36-2235).

1.8.2.2. TRG, TRW and numbered air force (NAF) standardization and evaluation offices, in conjunction with the HQ AETC/IG, evaluate technical training and BMT compliance with ISD guidelines.

1.8.2.3. TRG or designated level:

1.8.2.3.1. Use ISD to develop and revise training.

1.8.2.3.2. Determine the most cost-effective method to satisfy training requirements. Work with HQ AETC/A3T TPM to identify possible alternative training methods to satisfy unfunded training requirements.

1.8.2.3.3. Develop a process to document important ISD application decisions, constraints and assumptions, to enable managers and future developers to reconstruct significant course design decision points. Use the course design and development database management plan (where TTMS is installed) to guide the course development process and meet customer need dates.

Chapter 2

COURSE RESOURCE ESTIMATE (CRE)

2.1. CRE Description. 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, Attachment 2.

2.1.1. TMs submit draft CREs to the command TPM as 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 detail. A CRE is submitted prior to CTP submission. Refining resource requirements occurs as the CTP is finalized.

2.1.2. A CTP should be developed while the CRE is in coordination. HQ AETC/A1MRT and A3RB process the CRE as a draft annex. Following manpower validation, HQ AETC/A1MRT and A3RB notify the TPM (HQ AETC/SGNU for medical courses) that resources have been identified. If resources have been identified or are available from other sources, the TPM approves the CRE and requests a CTP from the TM.

2.1.3. CRE development time is normally 30-90 days from the time the requirement is identified. Requesting agencies must submit a complete set of training requirements when requesting a CRE. Delays will increase CRE production time.

2.2. When To Develop a CRE. When an event results in course resource requirement changes, HQ AETC/A3T tasks the TM to develop the CRE in order to begin resourcing requirements. CREs generated for any other reason must first be coordinated with the TPM. The CRE could 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. The CRE will be vetted through the U&TW process, and selected options will be coordinated with HQ AETC. CRE coordination POCs normally include the local manpower office (MO), HQ AETC/A3T, HQ AETC/A3R (HQ AETC/SGNU for medical training), HQ AETC/A1MRT, and the AFCFM. HQ AETC A7CP is the AETC facility requirements office of primary responsibility (OPR). **Note:** Submit a CRE only if additional resources are required. TMs will develop CTPs according to guidance in Chapter 3, and forward to the proper offices for approval and certification. Type 4 courses are resourced according to AFI 65-601, Volume 1, and are not required to complete a CRE.

2.3. What To Include in the CRE. The CRE contains the following information **NOTE:** When developing estimations for paragraphs 2.3.1 through 2.3.12, refer to Chapter 3:

2.3.1. Reason to develop new training or change existing training, such as an approved change to *Air Force Officer Classification Directory* (AFOCD)/*Air Force Enlisted Classification Directory* (AFECD), or AFMAN 36-2109, *Chief Master Sergeant of the Air Force and Senior Enlisted Advisor Programs;* new mission; new systems and equipment; AFCFM/MAJCOM functional manager-driven requirements resulting in a CFETP change; U&TW; FEQS; OSR; other AETC course evaluations.

2.3.2. 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.

2.3.3. 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 an SMY bill. An 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. To compute student man-years, multiply student entries by course length (in days), then divide by 246 (training days in a year). If calculating SMYs for ITRO courses, divide by 250. Coverage is applicable to nonprior service (AJ10), military training/BMT/OTS (AJ20), nonprior service follow-on (AJ30), officer accessions (AM10), prior service enlisted (AJ1K), Pararescue (PJ)/combat control (CCT) pipeline (A1LP), National Call to Service Initiative (AJ11), PJ officer (A2LP), and follow-on training/982 TRG programs (AJ40). Coverage also applies to training requester quota identifier (TRQI) codes (other than those previously mentioned), beginning with "A" for students who attend a course of 100 days or more (does not apply to Type 7 courses).

2.3.4. 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.

2.3.5. Facility requirement estimates, including 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.

2.3.6. 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 (DLR) funding and contractor support (such as equipment maintenance). Address estimates for each fiscal year as well as FYDP sustainment.

2.3.7. Estimate of any non-AETC support required. Information from system training plans, memoranda of agreement, and logistics support memoranda would provide required support.

2.3.8. Estimate training standard impact.

2.3.9. Estimate course chart impact.

2.3.10. Course security classification and proposed instructional design.

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

2.3.12. Media and cost/benefit analysis for new or changing instructional technology application requirements estimates (including IMI, Type 6 DL, or ITV).

Note: Information outlined in paragraphs 2.3.1 through 2.3.12 that impacts resources will be included in a narrative and attached to the CRE summary.

2.4. Coordinating CREs. The TM or designated representative develops the CRE when tasked by AETC/A3T (paragraphs 2.2 and 2.3), accomplishes local coordination, and forwards it to the

TPM, HQ AETC/AIMRT (HQ AETC/SGNU for medical courses) and HQ AETC/A3R for review and approval, with a courtesy-copy to 2 AF/TTOC. Coordinate with wing civil engineer if there are facility issues. Allow 30 days for HQ AETC coordination. Submit CTP to HQ AETC once resources are obtained.

2.5. CRE Funding Flow:

2.5.1. If the course can be funded within the TRW, the TM develops the CTP according to Chapter 3 and submits the documentation accordingly. If not, the TM forwards the CRE to the wing/group RM and info-copies 2 AF/TTOC. The RM confirms nonavailability of local support and forwards the CRE to the wing/group for approval. The TM emails the CRE to the TPM, HQ AETC/A3R (HQ AETC/SGNU for medical courses) and HQ AETC/A1MRT. HQ AETC/A1MRT validates the manpower requirements, and HQ AETC/A3RB 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. The HQ AETC TPM (HQ AETC SGNU for medical courses) forwards the draft CRE to the AFCFM for resourcing.

2.5.2. The AFCFM notifies the TPM (HQ AETC/SGNU for medical courses) if MAJCOM functional manager funding is available. The TPM (TPM and HQ AETC/SGNU for medical courses) notifies the TM. If funding is not available, the AFCFM forwards the CRE to HQ AF/A1PT and HQ AF/A1MT for funding and priority consideration. The AFCFM contacts the TPM (HQ AETC/SGNU for medical courses) concerning the status of the request. At minimum, the TPM will follow up with the AFCFM for a quarterly status check until the CRE is funded or the need date expires. The TPM will update the TM and 2 AF.

2.5.3. If Air Staff approves funding, the AFCFM contacts the TPM (HQ AETC/SGNU for medical courses). The TPM (TPM and HQ AETC/SGNU for medical courses) instructs the TM to proceed with CTP development, and courtesy-copies HQ AETC/A1MRT, HQ AETC/A3R/ and 2 AF/TTOC. If funding is not available, the AFCFM, TPM, HQ AETC/A3R (HQ AETC/SGNU for medical courses), and TM initiate an out-of-cycle request, or look for workarounds until the CTP can be developed. A CTP will not be approved without workarounds/alternatives that satisfy the funding requirements.

Chapter 3

COURSE TRAINING PLAN(CTP)

3.1. Description. A CTP provides the overall foundation for planning, programming, and implementing training within the training course parameters, such as facilities, equipment, manpower, etc. based on the student training requirements for the year it is to be implemented. The CTP contains the proposed course content outline and delineates the resources required to conduct training. It is a refined and accurate statement of resources required to support a course. Revisions are tracked in the course design and development database.

3.1.1. If piggyback courses exist, ensure they are identified in the CTP narrative, and include their course numbers. Piggyback courses must be reflected on the mother course's CC and the manpower pricing record.

3.1.2. To minimize CTP development time lag, TMs or designated representatives are encouraged to initiate and fill out pertinent CTP information simultaneously with CRE development.

3.1.3. The CTP outlines actions necessary to bring training on line, including those relative to security, course documents, student scheduling, instructional materials, manpower and personnel, facilities, and equipment for minimum and maximum training capabilities. For information on developing official manpower documents, go to AFKN on the AF Portal, select the AF COP link, and then the manpower and personnel link.

3.2. When To Develop a CTP/Abbreviated Training Plan:

3.2.1. Develop a CTP for new courses, and major course changes if changes affect course parameters or resources by a cumulative 20 percent or more (see Terms, Attachment 1).

3.2.2. Develop an abbreviated training plan (ATP) for minor course changes if the changes do not affect resources; when finalizing a CC or manpower standard after completing course validation that does not significantly alter the course; when adding motivational training (MT); or when making changes to finalized courses. An ATP is not required if changes to a CC and manpower standard affect nothing except status from tentative to final. Notify the TRW/MO that there are no changes to the course chart or manpower standard. Type 6 and self-paced course length adjustments that are due to validation are considered minor and require only an ATP.

3.2.2.1. The ATP includes a summary of changes and all updated annexes. AETC Form 120 changes that affect actual training resources or support equipment will be submitted in an ATP. Stock number or equipment custodian changes, typographical or grammatical error corrections, nomenclature changes, on-hand quantity changes need not be submitted through an ATP. Incorporate those changes into the next ATP or CTP.

3.2.2.2. TMs will provide an electronic CTP or ATP, if possible, to the local manpower office. Prior to submission to HQ AETC/A1MRT for processing, the TPM will ensure HQ AETC/A3I coordinates on all CTP and ATPs that involve interservice training, especially for ITRO consolidated courses.

3.2.3. CTPs are required for all Type 3, 4, 6, 7, 8, 9, C, M, and W courses (see Attachment 12). Type 5, A, B, and D may require CTPs, under the following conditions:

3.2.3.1. ITRO courses that consume SMYs (see paragraph 2.3.3.1.) but do not earn AETC instructors or affect other AETC resources must have CTPs that include 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.

3.2.3.2. ITRO courses that earn AETC instructors but do not consume SMYs must have CTPs with a manpower annex.

3.2.3.3. CTPs are not required for Type 5 courses that do not consume SMYs or AETC instructors, or affect AETC resources. However, a course that did not initially earn AETC instructors or impact AETC resources may develop an instructor impact after the student number reaches a certain level. When that happens, AETC manpower receives an instructor bill from the host service. Manpower will then notify the TPM (HQ AETC/SGNU for medical courses) and the TRW/MO that a CTP is required, and the TPM will notify the TM. TRGs have 30 working days from the date notified to submit the Type 5 CTP. Manpower will not pay the bill until the CTP 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 CTP.

3.2.3.4. An ITRO course that earns AETC instructors, consumes SMYs, and/or impacts AETC resources requires complete manpower annexes with appropriate documentation, according to AETCI 38-202, *Education and Technical Training Manpower*.

3.2.3.5. A CTP is also required when a course transfers from one base to another. If parameters remain the same, the TM makes the changes in TPS, the losing TM discontinues the old course, and the gaining TM loads the new parameters.

3.2.3.6. The BMT CTP does not require a manpower annex. Manpower requirements are earned by an Air Force manpower standard (AFMS).

3.2.4. TMs should not delay the development process over lack of an approved TS. Use a tentative TS in the original plan and update it later with the approved TS. Refer to Attachment 3, development and approval flow chart; Attachment 4, equipment resources flow chart; and Attachment 5, manpower resources process, when developing CTPs.

3.3. Coordination. When necessary resource support cannot be resolved at the TRW, coordinate annexes according to Attachment 3, Attachment 4, and Attachment 5. Applicable CTS proficiency levels will be slashed (/) until programmed resources are available. BMT will not postpone new CTS implementation while waiting for programmed resource requirements.

3.4. CTP Approval, Certification, and Activation:

3.4.1. The TRG commander or designated representative approves the CTP after the applicable wing or group agencies have reviewed and approved all annexes. Approval

signifies that all applicable local agencies have reviewed and approved their respective portions of the CTP, and that resources required to support the planned implementation date have been identified. **Note:** Training plans containing the use of MT must be routed through the TRW/CC and 2 AF/CC prior to sending to AETC/A3T for certification by HQ AETC/A2/3/10.

3.4.2. HQ AETC/A3T/A3R/A3Z/ as applicable is the final training plan certification authority except for training plans that include the use of MT, and 982 TRG type 4 training courses. HQ AETC certification signifies system support is available for the planned implementation date and the CTP complies with all applicable policy. Prior to certification, complete the following coordination as applicable; AFPC reviews for officer initial skills course impact, HQ AETC/A1MRT validates manpower requirements, HQ AETC/A3RB or HQ AETC/SGU (for medical courses or line courses requiring medical support) validates all resource issues, and 2 AF/TTOC reviews the training plan for impact to the accession plan (enlisted initial skills courses) and class programming. Courses will not be implemented until the training plan has been approved and certified.

3.4.3. AETC/A1MRT will activate courses in TPS after AETC/A3T certifies the CTP.

3.4.4. Each December, the TM will prepare a package revalidating the applicable motivational training plan annex. The annex will include the motivational training worksheet developed by the TDE, identifying each unit for which this training is appropriate; approved methods; rationale for implementation; and information regarding when and why it will be used. The TM will submit the package for TRG and TRW review and approval, and to 2 AF/TTOC for final endorsement. The TM will send a copy of the annual review and approved package to AETC/A3T.

Note: The course must be moved from the TTMS course design and development phase to student management prior to activation in TPS.

3.5. Format and Content:

3.5.1. The CTP generally includes an administrative section, narrative, annexes, and appendices that justify and support resource requirements and detail plan schedules. Use the CTP format in TTMS where course design and development database is installed. Include only annexes applicable to the course being created or revised. Where the course design and development database is not available, use a locally-established format. A course design and development database management plan (CDDDMP) and MAJCOM and host-agency coordinated CCDs satisfy 982 TRG Type 4 CTP requirements. The MAJCOM and host-agency coordinated CCDs and the applicable STS/CTS, RM annex, CC, POI and an approved CTP with manpower annex verified by 82 TRW/MO satisfy 982 TRG Type 3 CTP requirements. The following is a guideline:

3.5.1.1. **Narrative.** Provides an overview of information in the annexes and appendices. It describes planned course rationale, assumptions, and conditions.

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

3.5.1.2.1. Reason for developing the training plan, such as a U&TW or FEQS, AFS change, or MAJCOM feedback. Include the planned training implementation date.

3.5.1.2.2. A brief description of the subject matter, equipment, or system for which training will be provided.

3.5.1.2.3. Course instructional design, as shown on the CC.

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

3.5.1.3. **Course Control Documents:**

3.5.1.3.1. **TS.** Provide a brief summary of major STS and/or CTS changes that affect resources, and current development status (straw man, tentative, final, etc.). If resource constraints prevent complete STS or CTS implementation, describe constraints and interim and long term action(s) to correct deficiencies. Include workarounds and a projected STS or CTS full implementation date. BMT will not postpone new CTS implementation while waiting for programmed resource requirements. Specific CTS line items are identified with a slash (/) until programmed resources are available.

3.5.1.3.2. **Course Chart.** Briefly summarize major CC changes that affect resources and describe the CC development status. If applicable, summarize the impact on Type 3 enlisted and officer initial skill-awarding course wartime course parameters. The 982 TRG uses combined CC/TS for Type 4 training courses. For 982 TRG Type 3 courses, use a CC and STS or CTS.

3.5.1.4. **Total Programmed Entries and Scheduling Constraints.** Specify total programmed entries for the FY when the course will be implemented, and briefly describe class or student scheduling constraints, such as group sizes or minimum interval. Use TRQI requirements, including NPS student programmed attrition, as the total programmed entries baseline. If international students will be trained, describe what has been done to accommodate them (such as foreign disclosure and other computer access authorization processes).

3.5.1.5. **Manpower Authorization and Personnel Specifications:**

3.5.1.5.1. **Manpower Authorizations.** Include the course evaluation data sheet (CEDS), which is a brief narrative on manpower required to support, develop, and conduct the course (See AETCI 38-202 for the manpower annex process and preparation information.). It summarizes manpower annex data, and provides the manpower rationale. Work manpower authorizations with local MO and training squadron (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. Technical training group overhead position manpower (such as TMs, training developers, training resources, and training evaluators) is based on HQ AETC/A1MRT application of the manpower standards, normally applied every 2 years. HQ AETC/A3T or 2 AF/TTOC may request standards be applied sooner, coordinating with HQ AETC/A1M. However, there may be instances when manpower authorizations needed support the subsequent increase will be unavailable. If that occurs, funded authorizations will be allocated based on current training issue

criticality across the groups. Remaining shortfalls will be reviewed for possible inclusion in the program objective memorandum (POM).

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

3.5.1.6. **Facilities:**

3.5.1.6.1. **Training Facilities.** Indicate if existing facilities satisfy the training requirement. Conversely, indicate when additional training space or modification to existing facilities is required. Address cross-utilization of training facilities.

3.5.1.6.2. **Support Facilities.** If additional facilities are required, summarize requirements. If additional maintenance or student BOS are not required, state that.

3.5.1.7. **Logistics:**

3.5.1.7.1. Summarize actions taken to establish authorizations for equipment required to implement and support the course. State whether logistics resources are adequate to support the course. Include existing spares, repair parts, support equipment, training spares, special or modified tools, maintenance skills and maintenance technical data (see logistics annex). 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, and identify equipment utilization agreements for non-AETC equipment. Address in the MOA other MAJCOM equipment used.. Use the TTMS course design and development database-generated equipment list, or an AETC Form 120, *Training Equipment List*. See Attachment 6 for instructions on completing the AETC Form 120. **Note:** The 982 TRG will use the AETC Form 120A, *Field Training Equipment List.*

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

3.5.1.8. **Instructional Materials.** Includes a summary of materials required to support the training course.

3.5.1.8.1. State requirements for such training support data 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 transparencies; and computer software, programs, and program documentation.

3.5.1.8.2. Summarize Instructional Technology Unit (ITU) and the TDE media and cost/benefit analyses results, and AETC instructional material requirements such as study guides, workbooks, etc. Identify audiovisual, technology insertion or commercial publication requirements.

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

3.5.1.9. **Comptroller:**

3.5.1.9.1. Summarize cost rationale for course instructional design or selected medium. TM requests an 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. See paragraph 3.5.2.5. 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.

3.5.1.9.2. Summarize additional procurement appropriation funds required for base-funded investment equipment items (573080) (stand-alone items or systems valued at $250,000 or more), and O&M appropriation funds (573400). 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 CTP, indicating action taken. Reference the FY operating budget in which the funding requirements have been or will be included.

3.5.1.9.3. Comptroller may forward information to HQ AETC/A3RB for inclusion in the FYDP execution plan or POM.

3.5.1.10. **Environmental Impact.** Environmental impact analysis (EIA) is required 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. AF Form 813, *Request for Environmental Impact Analysis***,** initiates the EIA process, as required by 32 CFR 989, *The Environmental Impact Analysis Process*. An EIA must result in one of the following:

3.5.1.10.1. AF IMT 813 signed by the chief of the environmental flight indicating the proposed action qualifies for a categorical exclusion (CATEX).

3.5.1.10.2. A finding of no significant impact supporting an environmental assessment signed by the chairperson of the appropriate environmental protection committee.

3.5.1.10.3. A record of decision (ROD) supporting an environmental impact statement signed by SAF/IE/IEI. To ensure compliance with the National Environmental Policy Act, when an EIA is required/conducted, the training plan must include a signed CATEX determination, finding of no significant impact, or ROD, and AF IMT 813.

3.5.1.11. **Interservice Training.** Follow actions required by AFI 36-2230(I). The base MO must determine if a proposed or changed interservice course is a DoD, consolidated, collocated or quota course, Type 8, 9, A, B, or C. Indicate whether an existing other service course will or will not meet Air Force requirements.

3.5.1.12. **Motivational Training.** Summarize how motivational training will be used to achieve course objectives. Explain why motivational training is necessary and what controls are in place to ensure it is properly applied.

3.5.2. The training plan development and approval process is described in Attachment 3. See Attachment 4 for equipment resources process information, and Attachment 5 for manpower resources information. Annexes are critical to training plan development. They 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 subject/area authority approves or concurs by signing on that annex. A complex annex may be divided into appendices. The following annexes should be included, as required:

3.5.2.1. **Course Control Documents.** This annex contains the TS and CCs. Include a copy of the approved STS or CTS, when available. When there is no approved standard, use the tentative STS or CTS. (**Note:** When the TS is part of a CFETP, only the TS must be included.) Also include a copy of the CC, or the tentative CC(s) if necessary.

3.5.2.2. **Manpower Annex.** For information on multiple instructor requirements (MIR), MIR justification, the manpower annex, the CTP manpower requirements, and AETC Form 896, *Lockstep/Multitrack Course Evaluation Data*, refer to AETCI 38-202. The TRW/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 (if needed), AETC Form 896, *Lockstep/Multitrack Course Evaluation Data*, (if applicable), and MIR worksheet including MIR justification (if needed). MIR requirements will be based on equipment, safety, supervision, and related factors determined during the task analysis and validation of the course. Include complete minimum manning requirement (MMR) justification in the CEDS. 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. 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 5 for more information. The BMT CTP is certified without the standard manpower annex. BMT manpower authorizations are based on a separate manpower standard (AFMS 3660XX, Basic Military Training Squadron), coordinated with 37 TRW/MO.

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

3.5.2.3.1. Current facilities.

3.5.2.3.2. Classroom numbers and sizes.

3.5.2.3.3. Laboratory numbers and sizes.

3.5.2.3.4. Enlisted, officer, or civilian housing availability and quantity.

3.5.2.3.5. Specialized space: Number and size of rooms.

3.5.2.3.6. Administrative space: Number and size of rooms.

3.5.2.3.7. Maintenance space.

3.5.2.3.8. Other support facilities.

3.5.2.3.9. Additional space and other special needs (i.e., 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).

3.5.2.3.10. Actions taken to provide additional space requirements.

3.5.2.3.11. Work to be performed by the base civil engineer, identified on AF IMT 332, *Base Civil Engineer Work Request*.

3.5.2.3.12. O&M projects for existing facilities modification.

3.5.2.3.13. New construction required**.**

3.5.2.4. **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.

3.5.2.4.1. **Appendix 1, Training and Support Equipment.** Document training and support equipment requirements on AETC Form 120 and include the form in the appendix. The completed form is an essential resourcing prerequisite for an initial CTP approval/certification. However, once a CTP is certified and outside the CTP context, the AETC Form 120 is a living document, subject to minor changes and updates to maintain congruence with AFMAN 23-110, *USAF Supply Manual*. 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 AFMAN 23-110, Volume 2, and the TTMS course design and development database (where installed) for instructions on completing AETC Form 120. (**Note:** For grounded instructional aircraft, follow AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination*, guidance.) Include all items necessary to conduct the course if relocated.

3.5.2.4.2. **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.

3.5.2.4.3. **Appendix 3, Communications-Computer Systems Requirements.** Describe requirements and actions taken to acquire course automatic data communications requirements.

3.5.2.4.4. **Appendix 4, Non-AETC Logistics Support Requirements.** Describe logistics support required from other sources. Include copies of support agreements, MOAs, MOUs and letters that identify what agencies recognize and intend to provide.

3.5.2.5. **Comptroller Annex.** Describe course comptroller support. Include the appropriate budget information to enable equipment, spares support, TDY, instructional technologies funding.

3.5.2.6. **Security Annex.** Provides for control of classified information used in a course.

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

3.5.2.8. **Environmental Assessment Annex.** EIA 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. See paragraph 3.5.1.10 for additional information.

3.5.2.9. **Safety Annex**. The wing safety office or equivalent (SE) will review and coordinate on the Safety Annex. SE will certify MIRs that have been 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 or Air Force Occupational Safety and Health (AFOSH) standards IAW AETCI 38-202.

3.5.2.10. **Motivational Training Annex.** If motivational training is included in the course, procedures must be approved in an annex to the CTP or ATP. The TM will summarize how it will be used to achieve course objectives. Explain why motivational training is necessary and what controls are in place to ensure it is properly applied. Motivational training procedures are only authorized as reflected in this training plan and will be reviewed/approved annually by the applicable group, wing, and numbered Air Force directors of operations.

3.5.2.11. **Risk Management (RM) Annex.** All courses will conduct a formal RM assessment for each applicable activity as described in AFPAM 90-902, *Risk Management (RM) Guidelines and Tools*, using the format in attachment 16. 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 according to the level of specificity outlined in attachment 16. Battlefield Airmen courses (AFSCs 1C2X1, 1C4X1, 1T2X1, 1W0X2, 13DX, 13LX) will use the format at Attachment 16. Include in this annex a memorandum signed by the Chief of Safety or Ground Safety Manager citing applicable safety concerns.

3.5.2.11.1. 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 CTP/ATP.

3.5.2.11.2. 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 AETC/A3PV.

3.5.2.11.3. 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).

3.5.2.11.3.1. For courses requiring training plans, insert the MFR into the RM annex. **Note:** Assessment table/form may be signed by Squadron Commander and Wing Safety and take the place of the MFR. For courses not requiring training plans; e.g., Type 2, file the signed MFR/assessment table/form in the course record set. For courses with Technical Order (TO) based activities, T.O. safety and risk management processes should be referenced in the MFR/or RM annex as part of the RM assessment; however, a complete RM assessment is still required.

3.5.2.11.3.2. ATP processing solely for the RM Annex will not require coordination with HQ AETC/A3R 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 AETC/A3T.

3.6. Course Data Requirements. This section establishes responsibility and provides guidance for assigning AETC technical training course parameters, identifiers and titles.

3.6.1. TMs will log into the TPS to establish course numbers and a PDS code. See Table 1.1 to determine when a new PDS code is required. Refer to the online (Air Force Portal) TPS software user's manual (SUM) under Access Control – Training Manager, and Education, and Training Course Announcements (ETCA). The request automatically flows to AETC/A3P for approval and new course number and PDS code assignment. When officers and enlisted personnel attend a course (piggyback course), separate course numbers and course builds are required to ensure accurate student tracking and accounting. TMs will update ETCA accordingly.

3.6.2. Ensure student resourcing includes computation of SMYs, if required. For more information on SMYs, see paragraph 2.3.3.

3.6.3. Personnel will use the "workflow" function under the "maintain course" menu in TPS to ensure the next level of coordination is aware of impending action. Using workflow, TMs route completed course parameter information (previously the AETC Form 179) to the local TRW/MO by setting the course status to "awaiting coordination." If the action is to discontinue or delete a course, or to submit a CTP, the TRW/MO coordinates on the request by setting the course status to "awaiting certification." HQ AETC/A1MRT or 2 AF/TTOC will continue the action depending on the request. **Note:** See Attachment 5.

3.7. Steps To Bring a New Course Online or Convert to a New Course Number:

3.7.1. Request course number in TPS. If the new course is replacing an existing course, mark the course for auto conversion in TPS. Auto conversion will automatically generate a discontinuation date for the course being replaced, and further course discontinuation action will not be required.

3.7.2. The TM in conjunction with the TDE will build the course in the TTMS course design and development database. The TM will ensure the CC meets all established criteria.

3.7.3. The TM is responsible for coordinating CTP or ATP.

3.7.4. The TM moves the course from the TTMS course design and development database to the TTMS student management database (30 calendar days or more before course start date in TTMS and equal to the start date in TPS for major changes that affect the course number or PDS code).Before moving a course from the design and development database to the student management database, delete student status history from classes that will be converted to the new/revised course.. Carefully plan and time the move of a new or revised course from the course design and development database to the student management database. Pay specific attention to the fact that the course design and development database start date (minimum 30 calendar days from the move) will become the revision date, before which TTMS will not allow class start dates. If HQ AETC disapproves the CTP (or delays approval 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 Attachment 15 and the course design and development handbook on the TTMS web site for specific information required for course transfer to student administration.

3.7.5. The TM sends the AETC Form 179A, *Course Training Schedule for Allocations*, to the appropriate 2 AF/TTOC program manager to request he or she implement the course, a new course be activated or an existing course be converted to the 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 approved CTP implementation date (not applicable to Type 4 courses).

3.7.5.1. The TM inputs Type 2 course parameters into TPS, builds the course in the TTMS course design and development database, flows the course to the TTMS student administration database, and emails the TPM. A training plan is not required. The TPM will establish a discontinuation date (no longer than 1 year), notify the 2 AF TTOC Program manager to input the discontinuation date into TPS, coordinate with HQ AETC/A3R, and email to 2AF to request activation. 2AF will forward request to HQ A1MRT. HQ AETC/A1MRT activates the course based on TPM coordinated email.

3.7.5.2. When a new course is activated online, the TM notifies customers/course users and solicits their training requirements.

3.8. Steps To Flow A Course Within 30 Calendar Days of Class Start Date:

3.8.1. When 2 AF/TTOC implements a new course or course conversion in TTMS, the TTMS student management database forces a conversion date a minimum of 30 calendar days from implementation. For those isolated but urgent cases when TMs must start or convert a course earlier than 30 calendar days, the TM will email AETC/A3P, with a courtesy copy to the TRG/CC, to justify and request approval to implement the course at the higher urgency level. Because 2 AF/TTOC does not control the 30 day constraint, a waiver is required to adjust a course revision date, allowing center-generated classes following course conversion implementation (not applicable to Type 4 courses).

3.8.2. HQ AETC/A3PZ is the waiver approval authority to move courses within the 30-day window (not applicable to Type 4 courses).

3.8.3. HQ AETC/A3PZ or a designee notifies the HQ AETC/A5RI TTMS program management office (PMO) when a move is approved (not applicable to Type 4 courses).

3.8.4. HQ AETC/A5RI instructs the TTMS central customer support and local customer support to proceed with the move. **Note:** Local customer support will take direction only from HQ AETC/A5RI, the TTMS PMO, or the TTMS central customer support (does not apply to Type 4 courses).

3.9. Course Cancellation/Discontinuation. Initiate course cancellation or discontinuation requests using AETC Form 1, *Course Cancellation/Discontinuation.* HQ AETC/A3T (HQ AETC/SGU for medical courses) is the final approval authority. The decision to not implement a course that has been developed will be considered a cancelled course, requiring HQ AETC/A3T approval. After HQ AETC/A3T final disposition, the TPM informs the AFCFM and distributes the completed discontinuation form to the TM, 2 AF/TTOC, HQ AETC/A3R, HQ AETC/A3TI (ITRO courses only), FMAT, Air Force Security Assistance Training (AFSAT), and HQ AETC/A1MRT. TMs update ETCA and TTMS accordingly (course cancelation procedures do not apply to Type 4 courses).

3.10. Responsibilities:

3.10.1. TRG commanders approve CTPs.

3.10.2. HQ AETC/A3Tcertifies CTPs, and coordinates changes to courses, course numbers and training course data files through Air Force and HQ AETC staff agencies.

3.10.3. HQ AETC/A3P assigns and maintains, according to TPS, all formal technical training course identifiers and PDS codes.

3.10.4. HQ AETC/A1MR validates the CTP manpower annex, notifies the TPM (HQ AETC/SGNU for medical courses) when the pricing record has been validated and informs them of the affect on manpower.

3.10.5. HQ AETC/A3RB reviews for impact and makes a concur/nonconcur recommendation to TPM and HQ AETC/A1MRT. A course will not be activated without A3RB coordination.

3.10.6. 2 AF/TTOC develops CTPs and implementation schedules for standardized faculty development courses.

3.10.7. TRG or its designated level prepares training plans and annexes, and maintains an electronic or paper-based CTP record set; ensures documents are reviewed and coordinated in a timely manner; and .ensures the following process and procedures are followed when courses transfer from one TRW or TRG to another:

3.10.7.1. Obtain the required equipment, training standard, CC, POI and/or syllabus, lesson plans, tests, and training materials from the losing site.

3.10.7.2. Use the TTMS course design and development database (where available) to make all TS, CC, and POI changes, according to provisions and exceptions described in paragraph 1.1.1. Pen-and-ink changes are allowed to correct administrative errors if changes do not affect course resources or content. Input pen-and-ink changes into the course design and development database; (such changes do not need to flow to the TTMS student management database until the next revision).

3.10.7.3. Ensure a current AF Form 813 is on file.

3.10.7.4. Once HQ AETC/A1MRT activates the course, the TM uses AETC Form 179A to notify 2 AF/TTOC when the course is ready to convert. Use TPS to prepare class schedules and validate and distribute allocations. The first class start date will be 30 days after the conversion date (does not apply to a new course that does not replace an existing course).

3.10.7.5. Follow AETCI 36-2203 procedures and processes to develop, coordinate, and approve CTPs and related course management documents (applicable to new or transferred courses with resource impacts).

3.11. Timely Submission of CTPs/Annexes:

3.11.1. Begin developing CTP at least 90 calendar days before the class start date to allow time to complete processing, approval, certification and implementation of CTPs (30 days for finalization/local processing begins when U&TW determines a training plan is required; 30 days for HQ AETC validation and certification; and 30 days for course schedule conversion, required by PDS).

3.11.2. CTPs should arrive simultaneously at HQ AETC/A3T and HQ AETC/A1MRT (HQ AETC/SGNU for medical courses): The local MO provides CTPs at least60 days before a course start date.

3.11.3. After HQ AETC/A3T certification, HQ AETC/A1MRT activates or modifies courses in TPS.

3.11.4. If CTPs (new or abbreviated) will be included in the next pricing cycle, submit drafts to HQ AETC/A1MRT and HQ AETC/A3R at least 60 calendar days before pricing. TRWs will be notified of pricing dates at least 90 days before the pricing event.

3.11.5. If a CTP or annex misses the pricing deadline, the base MO must use the latest pricing official entries to reprice the course and resubmit to HQ AETC/A1MRT.

Chapter 4

CAREER FIELD TRAINING DOCUMENTATION

4.1. Conducting Utilization and Training Workshops (U&TW):

4.1.1. Use the U&TW process to develop and review AFS or civilian occupational series training programs.. The U&TW process exists to develop the architecture for effective life-cycle training, which is provided at appropriate points throughout a career path and helps ensure that personnel are properly employed. Review AFI 36-2201, Volume 5, for specific guidance on U&TW workshops. U&TW checklist use is mandatory. **Note:** The cryptologic and TEMPEST fields incorporate U&TW functions in cryptologic training advisory groups and job educational training standards. 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. It recommends requirements for a new or revised CTS based on internal or external training evaluation and feedback.

4.1.2. U&TWs may be convened to resolve training or personnel utilization issues.

4.1.2.1. To prepare for U&TWs TMs and participants review applicable data, such as AFS classification, OSRs, AFI 36-2201, Volume 5; customer service information process (CSIP) inquiries, graduate assessment surveys (GAS), internal feedback results, and FEQSs.

4.1.2.2. In any meeting that involves a career field restructure include an AFPC/DPSIDC representative to provide guidance on the options and limitations involved in a restructure or merger.

4.1.2.3. Include a representative from HQ AU/A4L in any meeting that includes CDC issues.

4.1.3. The TM works with the ITU and TDE to conduct a media and cost/benefit analysis when new or revised training requirements are known. The ITU will provide media selection guidance.

4.2. Career Field Education and Training Plan (CFETP). The CFETP identifies officer and enlisted specialty and civilian occupation life cycle education and training requirements by skill level and/or duty position. AFI 36-2201, Volume 5, includes steps to prepare, coordinate, approve, publish, issue, announce, and index a CFETP.

4.3. Responsibilities:

4.3.1. Review officer and enlisted classification description changes and provide consolidated reply through the TPM to HQ USAF/A1DL within 30 calendar days; review requires comments on any impact on training programs, and the minimum lead time (in months) before the change should go into effect.

4.3.2. Recommend validated requirement for new or revised STSs based on internal or external training evaluation and feedback. Any formal course STS item modification must be coordinated with the TPM and approved by the AFCFM.

4.3.3. Plan for and prepare STSs and CTSs to support training requirements established during a U&TW and approved by the AFCFM.

4.3.4. Identify training standard and CFETP additions, changes, and deletions, and provide rationale for actions taken. Coordinate training standard change recommendations through the TPM to AFCFM (approval authority).

4.3.5. Host U&TWs held at AETC installations in support of AFCFMs.

4.3.6. Review and analyze CFETP coordination impact on tentative training standards, and prepare final STS. When MAJCOM input will not be included in the final STS or CTS, provide rationale through the TPM to AFCFM.

4.3.7. Inform 2 AF/TTOC and TPM of training issues that require HQ USAF resolution.

4.3.8. Ensure STS and CTS task items are written to maximize user standard interpretation.

4.3.9. Determine the most economical and effective methods to satisfy formal training requirements.

4.3.10. Research to determine if alternate methods can satisfy unfunded training requirements.

4.3.11. Provide TPM and 2 AF/TTOC information identifying and justifying unfunded training resource requirements (such as resource impact statements) within 3 weeks of a U&TW or any major decision that results in additional resource requirements.

4.3.12. Coordinate with HQ AU/A4L for CDC need dates, and document dates in the U&TW minutes.

4.3.13. Distribute all classified CFETPs according to local special security office (SSO) procedures.

4.3.14. Send recommendations to change, add, or delete published CFETP information to the AETC TPM who will coordinate with the AFCFM. The AFCFM will approve or disapprove changes and determine if page changes or revisions are necessary.

4.4. Specialty Training Standards (STS). An STS is a contract between AETC and its customers.

4.4.1. **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 for new courses and revisions.

4.4.2. **Approval.** The AFCFM approves an STS only after customer requirement and provider (AETC) capability differences are resolved.

4.4.3. **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.

4.4.4. **Functions.** The STS serves the following minimum functions:

4.4.4.1. 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.

4.4.4.2. 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.

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

4.4.4.4. Identifies upgrade and qualification training, and specialty knowledge test (SKT) and student study references.

4.4.4.5. Reference used by commands to evaluate enlisted formal school graduates.

4.4.4.6. 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.

4.4.5. **STS Preparation.** Publish the STS as an integral part of the CFETP.

4.4.5.1. **Tasks.** Formal training tasks will not duplicate PME or ancillary training tasks. Task proficiency levels should not duplicate other formal training course proficiency levels, except CDCs. CDC knowledge proficiency levels may duplicate other courses at different skill levels, if different aspects of a topic apply to the different skill levels.

4.4.5.2. **Format.** Format is flexible and may vary to fit specialty needs.

4.4.5.3. **Numbering Pages.** Number pages as a continuing, integral portion of the consecutively numbered CFETP. The proficiency code key is normally the second page of the STS. Include the following in the first page:

4.4.5.4. **Heading.** The STS number is the Air Force specialty code (AFSC). An "X" in the fourth digit indicates the STS covers more than one skill level. List all skill levels covered by the STS on the next line. If a shredout is involved, use the shredout (example: 2A6X1A/C/D/E).

4.4.5.5. **Titles.** Use exact titles from AFS descriptions.

4.4.5.6. **Content and Paragraph Numbers.** Refer to AFI 36-2201, Volume 5, for STS cover page content and number of paragraphs.

4.4.5.7. **Customer Service Information Line (CSIL).** Training groups provide a 24-hour customer service line to enable graduates’ supervisors to contact the technical training school regarding any concerns. Include the training evaluation branch’s defense switched network (DSN) information on the first page of the STS or CTS. The training evaluation branch email address is optional.

4.4.6. **Preparing Training Tasks:**

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

4.4.6.2. During the U&TW or when coordinating a tentative 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.

4.4.6.3. 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.

4.4.6.3.1. 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 OSR is available, list all first job tasks, as well as 5- and 7-skill level tasks, according to the analysis extract forwarded with the OSR.

4.4.6.3.2. 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 tentative training standard.

4.4.6.3.3. 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 OSR training extract STS factor printout. 4.4.6.3.4. Use OSR data, when available, to determine which tasks are performed at each AFS skill level. Consider including tasks performed or knowledge required by 20 percent or more of the personnel in each AFS skill level. For specialties where 20 percent is unrealistic, establish an alternate cutoff point, and maintain supporting rationale in the STS record set folder.

4.4.6.3.4. Use OSR data to determine if because of task difficulty, safety factors, or training emphasis ratings, tasks performed by less than 20 percent should be included in the list. Include in the STS column 1, regardless of percent performing.

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

4.4.6.3.6. Provide rationale (OSR data, evaluation feedback, or user input) as 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.

4.4.6.4. 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.

4.4.6.4.1. Do not use subject knowledge statements for task knowledge or performance, and do not use task statements for subject knowledge items. 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.

4.4.6.4.2. 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.

4.4.6.4.3. 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. Avoid redundant or qualifying phrases, such as "in accordance with local directives," "when appropriate," or "as required." Avoid vague or ambiguous words, such as "know," "understand," or "determine." Provide two or three specific examples for clarification, rather than "and/or" or "etc." Use simple statements without qualifiers (**Example**: 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. Avoid task statements that include multiple objects. (**Example:** "Check the fire detection system" rather than "Check the fire detection, extinguishing, and overheat warning systems"). Course developers may combine closely related or similar tasks when developing course objectives.

4.4.6.5. 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 pneudraulic principles or principles of accounting.

4.4.6.5.1. 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.

4.4.6.5.2. Avoid ambiguous knowledge statements. Use "Theory of credit" rather than "Be familiar with the theory of credit." Avoid multiple subjects or objects. Use "Theory of credit" rather than "Theory of debit and credit."

4.4.6.6. 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 OSR data, SME and training specialist job knowledge, MAJCOM, CDC writer, and AU/A4L representative input, and available resource knowledge to establish requirements.

4.4.6.6.1. 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.

4.4.6.6.1.1. 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 (-).

4.4.6.6.1.2. 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.

4.4.6.6.2. 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 12.4 for criteria to establish a CDC requirement. SKT development support is not justification to establish a CDC requirement.

4.4.6.6.2.1. 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.

4.4.6.6.2.2. 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.

4.4.6.6.2.3. 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 AU/A4L, the CDC writer identifies proficiency codes according to established procedures outlined in the AU/A4L *Guide for Authors: Standards for Course Development,* Unit 3. The guide can be found on the AF Portal, AU/A4L page, under the writer/manager link.

4.4.6.7. List training references (TR).

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

4.4.6.7.2. Omit government publication dates, but use the most current reference available when you forward the final STS for publication. 4.4.6.7.3. 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. For medical AFSCs, the treatment facility librarian will consolidate requirements and submit them through appropriate supply channels. Ensure AFCFM commercial and other service publication use. Contact the procurement source or supplying agency to confirm commercial and other service publication TRs are available.

4.4.7. **CFETP and STS Changes.** The AFCFM ensures the accuracy of CFETPs and STSs.

4.4.7.1. The AFCFM coordinates with the TPM to determine if a U&TW is required. For routine changes, the AFCFM sends a memorandum to notify the appropriate training wings and HQ AETC/A3T.

4.4.7.2. Limit write-in changes to minor additions or corrections. For others, use page insert changes (remove and replace pages). Submit both sides of the page for camera-

ready page changes. Use the decimal system to number insert pages. **Example:** A page inserted between pages 4 and 5 is page 4.1).

4.4.7.3. Do not coordinate with using commands any changes that delete the second code of dual-coded elements.

4.4.7.4. For minor STS cover page alterations, write in changes. Use a page-insert change for the cover page only when significant modifications are required.

4.4.8. **STS Responsibilities**:

4.4.8.1. **AFCFM.** Establishes requirements and format, and ensures STS meets CFETP format when incorporated into Part II.

4.4.8.2. **HQ AETC TPM (TPM and HQ AETC/SGNU for medical courses).** Helps TRGs and 2 AF resolve customer request and the TRG capability equipment conflicts.

4.4.8.3. **TRG or designated level:**

4.4.8.3.1. Prepares STS to support current AFI 36-2101, *Classifying Military Personnel (Officer and Enlisted)*, and coordinates with customers on the CFETP and STS.

4.4.8.3.2. Resolves all issues; submits the STS to TPM and AFCFM to publish and distribute.

4.4.8.3.3. Informs the TPM and 2 AF/TTOC if it is necessary to initiate unfunded formal training requirement program decision packages.

4.4.8.3.4. Recommends STS changes based on internal or external evaluation and feedback.

4.4.8.3.5. Reviews CFETP part IIs annually during the anniversary month. This review does not constitute the AFCFM's annual CFETP certification. Email the review to AFOMS/TE. See Attachment 7 for sample format.

4.4.8.3.6. Uses AETC Form 23, *STS Proficiency Code Key (Final).* Develop a behavioral statement STS with behavioral statement codes (P, K and pk) as indicated in AFI 36-2201, Volume 5.

4.4.8.3.7. Maintains the STS record sets. The record sets in the TTMS databases, where TTMS is installed. maintain electronically or paper-based record sets where TTMS is not installed, and for classified STSs.

4.5. Course Training Standard:

4.5.1. **Requirements.** A course training standard (CTS) identifies a specific course's training and proficiency level. as 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. The 982 TRG may use a combined CTS and CC for system courses/specialty training (not 3-level AFSC awarding courses). The BMT CTS is developed according to AFI 36-2201, Volume 5. See Attachment 8 and Attachment 9 for format. 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. Other format variations are permitted with OPR prior approval.

4.5.2. **Delete.**

4.5.3. **Format.** Use the TTMS CTS template. If TTMS is not available, develop a qualitative requirements list according to examples in Attachment 8 and Attachment 9. Attachment 8 is a proficiency code CTS sample. Attachment 9 is a behavioral CTS sample. Begin numbering on the second page and number pages consecutively. Use the 982 TRG curriculum management operating instruction (OI) to develop or revise the combined CC/CTS. The BMT CTS includes affective domain training which may not be formally measured (see local BMT guidance).

4.5.4. **Cover Page:**

4.5.4.1. Format heading in as shown in Attachment 8 and Attachment 9. 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.

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

4.5.4.3. See Attachment 8 and Attachment 9 for cover page placement of the TRG commander's signature element.

4.5.4.4. See Attachment 8 and Attachment 9 examples of information appropriate for the cover page. Do not type a page number on the cover page.

4.5.4.5. **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.

4.5.5. **Qualitative Requirements Instructions:**

4.5.5.1. When necessary for behavioral format CTSs, type distribution on the back of the cover page, and number it as page 2. Generally, AETC Form 60, *CTS Proficiency Code Key***,** is the second page of the document. A CTS in the behavioral format will not include an AETC Form 60; instead, the second page will begin the list of tasks and knowledge, or the proficiency codes in AFI 36-2201, Volume 5

4.5.5.2. Prepare CTS to describe course content. Base tasks and knowledge on applicable AFS description analysis (not available for BMT), available OSR data, SME specialty knowledge, and MAJCOM requirements. Base task and knowledge statements on available source data analysis. Course content will not duplicate PME or ancillary training tasks and knowledge (except BMT). Do not duplicate the level of training provided in other training courses. Tasks, knowledge items, and proficiency levels will prescribe only training available in the course. Coordinate CTS changes that affect training through TPM for AFCFM or equivalent approval. To accomplish such changes, republish the CTS and generate an ATP/CTP if appropriate. TM documents in the record set editorial changes that do not alter course training. Note editorial changes in the TTMS database (where installed). Use standards described in paragraphs 4.4.6.4 through 4.4.6.6 to develop CTS.

4.5.5.3. Describe task and knowledge training requirements in the same manner and as specifically as those in Attachment 8 and Attachment 9. Include tasks and knowledge items that support operational requirements. A CTS is organized in one of two ways: 1) by major equipment, subsystem, or work center with the task and knowledge statements listed as subparagraphs, or 2) by major tasks with the major equipment, subsystem, or work center listed as subparagraphs. Each organization allows realistic proficiency levels to be assigned to each entry.

4.5.5.4. Use proficiency code key scale values of the (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. TRs may be used when advantageous.

4.5.5.5. The following guidelines apply to behavioral statement CTSs:

4.5.5.5.1. Use the behavioral statement coding system in AFI 36-2201, Volume 5.

4.5.5.5.2. Describe observable, measurable skills and knowledge gained from training. Clearly state what graduates will be able to do, using specific and objective statements that permit easy assessment through the graduate evaluation program described in AETCI 36-2201, *Technical and Basic Military Training Evaluation*. If necessary, include conditions and/or standards to clarify the behavior.

4.5.5.5.3. 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."

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

4.5.6. **CTS Responsibilities:**

4.5.6.1. 2 AF/TO will develop, approve publish and distribute CTS for standardized faculty development courses; and resolve conflicts between groups and customers prior to approval and publication.

4.5.6.2. TRG or designated level will develop CTS and coordinate with customers; resolve conflicts between the group and customers prior to approval and publication; approve, publish, and distribute CTS; determine the most cost-effective method to satisfy training requirements; evaluate alternative training methods to satisfy unfunded requirements; and maintain CTS record sets. Maintain CTS record sets in TTMS, if installed. If TTMS is not installed, maintain electronic or paper CTS record sets.

Chapter 5

TRAINING OBJECTIVES

5.1. Description. Student measurement is based on training objectives. Job performance is the foundation for ISD. Training objectives reflect behaviors, conditions and standards graduates will demonstrate on the job. Instructional designers write training objectives and select appropriate learning conditions. Performance objectives are preferred for technical training courses. However AFMAN 36-2236, *Guidebook for Air Force Instructors,* allows knowledge-based training that includes written test measurement based on level-of-learning objectives and samples of behavior. Objectives identify what shall be measured. For guidance, 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.

5.1.1. Cover each TS item with one or more objectives. Collectively, objectives satisfy all TS course requirements. Tie each objective to TS items it supports. Use discretion when closing multiple TS items with a single objective.

5.1.2. Base objectives on TS task and knowledge statements.

5.1.3. Behaviors must satisfy TS job knowledge and performance requirements.

5.2. Format. Training objectives should follow a three-part format. Use the TS line item verb for terminal objectives. The objective standard may be implied. When sampling written tests are used to measure the objective, knowledge objectives may imply conditions and standards. The ISD approach is to write objectives that closely reflect job conditions, behaviors, and standards. If course objectives are written in the affective domain, use relative verbs to describe the intended behavior. Affective verbs do not describe observable measurable actions for behavioral objectives. Some affective verbs are: feel, sense, capture, experience, attend, perceive, allow, clarify, internalize, etc.

5.2.1. Under conditions, include whatever the student may use to achieve the required behavior. Objectives written without conditions imply “without reference” or “from memory.”

5.2.2. Use verbs that describe observable, measurable actions for behavior objectives. Objectives will reflect graduates’ on the job behaviors. Do not use the measurement device as the object of an action verb. Limit action verbs to one per objective unless actions are normally concurrent (such as “remove and reinstall”). When possible, use action verbs directly from the TS. When a behavioral statement CTS is the TS, terminal objective behaviors will mirror the CTS.

5.2.3. Standards define the proficiency level students must attain to pass the objective (i.e., level of performance that proves the student has achieved job standards). If the objective finalizes a TS element, the standard ensures students meet the required proficiency. The objective standard may be implied. s When sampling written tests are used to measure the objective, knowledge objectives may imply standards. For example, "recognize traffic signs" has an implied standard of 100 percent. A graduate would be expected to recognize all traffic signs, not just some of them.

5.2.3.1. Performance objectives written without standards imply performance must be without error or assistance, with 100 percent accuracy. However standards may indicate a specific time, a degree of accuracy, a required quality, or such standard instructions as “in accordance with” at TO checklist.”

5.2.3.2. If a progress check and written test are used to measure an objective, the standard will reflect the progress check success requirement, and the objective must closeout with the progress check. If a sampling written test is the only measurement, the standard will be the established minimum passing score, and a standard will not be stated.

5.3. Responsibilities. The TRG or designated level establishes group procedures and provides guidance, expertise, and oversight for course training objective development. Use the ICIS course design and development database three-part wizard to build unclassified course objectives whenever possible.

Chapter 6

STUDENT MEASUREMENT

6.1. Description. Student measurement encompasses a series of measurement instruments that can be used to meet the needs of technical training courses. Computer-based measurement and analysis is acceptable and encouraged**.** Instructors and TDEs should complete a statistical item analysis for each course test. AFMAN 36-2236 describes analysis methods. Employ appropriate safeguards including those applicable to computer systems to prevent compromise of measurement materials. At a minimum, configure computer based and online measurement systems to block predator computer programs from running during formal online testing; prevent the use of shortcut keystrokes to accomplish bypassing test security prevent viewing of the hypertext markup language (html) coding associated with web pages; ensure additional software programs, such as Web X, are not running in the background during online testing; encrypt test data to prevent unauthorized access to formal tests; assign proper security profiles and roles for all levels of users; limit administrative privileges on servers; support secure deployment of testing software with separate Web servers, application servers, and database servers; prevent tests from being improperly posted to shared drives; and ensure identification and authorization of all users.

6.1.1. To graduate, each student must successfully pass all formal measurement devices, including performance tests, written tests and progress checks. An exception would be a performance objective or written measurement not taken because of a documented training deficiency. Instructors may grant international students additional time to complete measurement devices when language difficulties dictate.

6.1.2. Measurement/assessment is required in all courses.

6.1.3. Grade performance tests and progress checks by either satisfactory (S), unsatisfactory (U), or percentage scores. If a student fails a written measurement, retests and passes, the student receives the minimum passing score achievable for the written test. However, all scores should be documented because they might provide additional insight into student motivation or ability to study and learn. Performance tests and progress checks may be graded by either satisfactory (S), unsatisfactory (U), or percentage scores.

6.1.4. Employ appropriate safeguards including those applicable to computer systems to prevent compromise of measurement materials. Administer all measurement, including computer based or online, measurement in a controlled (proctored) environment. TRGs will develop procedures to store; inventory and control test materials, in print or electronic formats, as well as ensuring printed test materials are free of marks that could convey test answers. Send tests to other bases using certified mail, approved encrypted electronic transfer procedures or password-protected electronic files. Handle classified material according to established security procedures.

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

6.1.6. When the task knowledge component of a performance objective is not apparent in the successful achievement of a performance test or performance progress check, measure the knowledge with either a written test or knowledge progress check.

6.1.7. Measurement items will measure the behavior of training objectives as closely as possible. Write measurement items using the guidelines in AFH 36-2235, *Information for Designers of Instructional Systems;* AFM 36-2234, *Instructional Systems Development;* and AFM 36-2236, *Guidebook for Air Force Instructors*.

6.2. Written Tests. When students successfully achieve the minimum overall passing score on a written test, it implies they have achieved individual objectives and it provides an acceptable degree of confidence that they have attained the required knowledge. In addition, written measurement aids in knowledge retention, acts as a quality control device, and is used to assign grades. Written tests are not limited to selection type items. They may be essay or supply type, such as fill in the blank. Maintain a master copy of each test, either electronic or paper-based, to identify the correct answers, show plan of instruction (POI) objective correlation to each test item, and identify the approved corrections and changes made in the test. Written tests do not have to be dated after the POI. Simply annotate the test to indicate the POI it supports. **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.

6.2.1. Use a written test to sample each knowledge objective and, when necessary, the knowledge components of performance objectives. (See paragraph 7.1.3.3 for guidance on the allocation of time for written tests.) If a performance test or performance progress check adequately assesses the knowledge components of a performance objective, written test items for that objective are not required.

6.2.2. Establish a minimum passing score of 70 percent or higher for written tests and progress checks. Identify minimum passing score in the standardized test instructions given to students during the pretest instructional period. The minimum passing score may be expressed as either a ratio of whole numbers or a percentage. If a ratio is used, it must meet or exceed 70 percent without rounding (i.e., 15 of 21 correct is 71.428 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.

6.2.3. For ease of scoring, course personnel may use AETC Form 1200, *OMR Classroom Answer Sheet;* AETC Form 26, *Standard Answer Sheet (50 Items)* and AETC Form 26A, *Standard Answer Sheet (100 Items);* or AETC Form 150, *Field Evaluation and Examination Answer Sheet***,** for written tests.

6.2.4. 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. Also, time allotted for the testing period impacts the number of test items. **Note:** When a single objective finalizes multiple TS items, ensure the number of questions is sufficient to assess student attainment of required knowledge.

6.2.5. 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. All test versions will have the same number of test items per objective. It is not necessary to maintain alternate test versions if the course uses randomly generated computer tests. The passing standard and number of test items will be the same for alternate test versions. 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. Randomly rotate test versions to ensure each is administered as equally as possible.

6.2.6. 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.

6.2.7. Score tests and individually inform students of their grades as soon as practical after administering a test. Temporarily return scored answer sheets and copies of the test to students for their review during the critique process (except video-teletraining and computer-based instruction). In BMT, the critique will be accomplished using the test booklets only. For Type 6 courses requiring measurement, feedback is managed by the designated test site monitor.

6.2.7.1. Make students aware of the answers to missed questions and clarify misunderstandings to enhance learning. In BMT, trainees receive their scores after the test critique. For Type 6 courses, the test site monitor may refer students to the appropriate TRS for additional feedback.

6.2.7.2. During the critique, obtain students' opinions as to why questions were missed so corrective actions may be taken, if appropriate. Record grades on the student report cardin the TTMS; AETC Form 156, *Student Training Report*; or AETC Form 325, *Student Accounting and Attendance Record***,** in accordance with AETCI 36-2215, *Training Administration*. Record test results on AETC Form 668, or in a computer-generated test analysis system. For test item analysis application and interpretation see AFMAN 36-2236, Chapters 25 or 26. For test analysis, include high-miss test questions analysis as a minimum. Examiners make appropriate comments on AETC Form 668 or other applicable data collection documents, to include computer forms of documentation. Allowances are permitted for use of alternate test analysis for randomly computer generated tests.

6.2.8. Develop standardized instructions for the examiner and examinee.

6.3. Performance Tests. Administer performance tests to evaluate a student's attainment of skills required by performance objectives. This test is a separate unit of instruction that requires the student to perform one or more objectives under specified conditions in a formal testing mode. Performance Tests are administered to evaluate trainee attainment of skills required by performance objectives and require trainees to perform objective tasks under specified conditions in a formal testing mode.

6.3.1. Give performance tests under controlled conditions to measure student accomplishment of performance objectives after the teaching-learning activity has been completed. Use performance tests to measure performance objectives where progress checks do not provide an adequate degree of quality control or record of performance.

6.3.2. 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 in TTMS; on the AETC Form 98, *Student Progress Checklist*; or a locally approved checklist.

6.3.3. 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.

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

6.3.5. 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, Volume 3, *Air Force Training Program on the Job Training Administration*. Only subject matter-qualified instructors may initial CFETPs, and they will include "AETC Instructor" after their names in the identification block of the students' CFETP Part II. Upon course completion, the CFETP is provided to the student's gaining organization. This may be accomplished by mail, hand-carried by the student, or sent electronically. **Note:** Not applicable to firefighting training.

6.4. Progress Checks:

6.4.1. In technical training units, progress checks are formal measurement devices administered by the instructor during 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. Develop checklist items for each performance objective assessed by a progress check. When operational aircraft and equipment are used for training, the appropriate TO must be used during the progress check. In this case, it is not necessary to develop a checklist. For BMT, refer to local guidance for accomplishing progress checks. Develop specific instructions for the examiner and examinee that details the measurement process to include the meaning of an instructor assist, if used, and identifies the minimum passing standard.

6.4.1.1. 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.

6.4.1.2. The instructor checks the student's progress during the teaching-learning activity, determines if a student's performance is satisfactory and, if necessary, requires the student to repeat all or any portion of the objective needed for successful performance.

6.4.2. Progress checks may be used for knowledge objectives in conjunction with written tests and may be used instead of written tests in Types 4, 6, and 7 courses. Progress checks will be afforded the same security and control as written tests when used in place of written tests or when prior knowledge of the progress check will afford the student an advantage. Progress checks that are not compromisable do not need to be controlled.

6.4.3. Actual accomplishment of progress checks may be delayed until the end of a unit of instruction (or 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.

6.4.4. 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.

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

6.4.6. Record unsatisfactory completion of objectives in the TTMS database in accordance with AETCI 36-2215. Unsatisfactory results will be documented in TTMS within 24 hours after the failure occurred. When documenting satisfactory completion of a block in the database, all objectives in that block are considered passed. At all locations where TTMS is operational, use automated products produced by TTMS to track students. Where TTMS is unavailable, results may be maintained on AETC Form 667, *Criterion Checklist*; AETC Form 667A, *Criterion Checklist*; AETC Form 98; or a computer-generated checklist. Maintain results of the checklist during the validation phase of training to permit analysis and validation of the checklist.

6.5. Appraisals:

6.5.1. Appraisals are a series of questions and/or projects used to informally check day-to-day progress.

6.5.2. An appraisal may be used to informally assess retention and/or comprehension to provide early identification of students who need individual assistance. An appraisal may be administered without documenting it in the POI.

6.5.3. There is no requirement to record grades or control appraisals. Unsuccessful completion of appraisals may be used as part of the rationale for student washback or elimination, but not for determining the official final grade.

6.5.4. Conduct appraisals relevant to field trips and visits to places outside the classroom environment as soon as practical to determine the continuing value of the trip or visit.

6.6. Group Measurement:

6.6.1. Ensure an objective that requires group or team performance specifies in the conditions that a group or team performs the behavior.

6.6.2. For group or team activities, rate each member's performance and participation. When possible, rotate each member of a group or team to different positions during the performance test or progress check. Evaluate students while they are performing in at least one active task associated with the objective. Do not assume success merely by observing the student reading a procedural document.

6.6.3. An important BMT training goal is to ensure civilian recruits learn to operate effectively as a team. Teamwork is a crucial evaluation element while trainees interact as a group or flight.

6.6.4. Ensure objectives that require group, team or flight performance specifies the conditions under which that group, team or flight performs the behavior.

6.6.5. An subject matter qualified instructor checks trainee progress during the teaching-learning activity and determines if trainee performance is satisfactory and, if necessary,

requires him or her to repeat all or any portion of the objective needed for successful performance.

6.6.6. Accomplishment of performance progress check may be delayed until the end of a unit of instruction (or WOT for BMT) until the end of the next WOT to enhance trainee retention.

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

6.7. Measurement Plans. A course measurement plan ensures adequate assessment of all course objectives. The POI meets the requirements for the measurement plan for Type 4 courses. Use AETC-approved or the current course design and development database measurement plan template when available. The plan includes such information as the following:

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

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

6.7.3. Written test question numbers correlated to objectives.

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

6.7.5. Develop measurement plans using the template generated by TTMS where installed.

6.8. Measurement Validation. Measurement validation ensures each measurement instrument assesses the course content it is designed to assess and may or may not occur concurrently with course validation. Data from the first three administrations of each measurement instrument usually provide sufficient information to complete the validation. This may be extended if required. Different validation parameters may be established based on student flow. Validation should be completed in a year. Randomly generated computer test validation is accomplished by objective rather than by test since each test is different. This is normally completed after four to six administrations.

6.8.1. 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.

6.8.2. Analyze the measurement instrument as defined in AFMAN 36-2236, Chapters 25 or 26, 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.

6.8.3. 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.

6.8.4. During measurement validation, if desired, administer a single test version without test rotation, except in the case of a retest.

6.8.5. Maintain individual student checklist results for the first three administrations of performance test and progress checks for validation review. 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.

6.9. Periodic Test Analysis After Measurement Validation:

6.9.1. The goal of analysis is to help determine whether each test item meets the necessary standards of difficulty, reliability, and validity. In other words, does each item effectively and objectively measure the degree of student achievement required of that specific learning objective? Each statistical figure produced by test item analysis represents a descriptive measure of how well each component of each item meets the standard. The goal is to develop items with statistical values that will fall within acceptable limits of discrimination and difficulty. If high-miss or poorly performing items based on test analysis become evident after a measurement device has been validated, review the training activities associated with these items to determine the cause. To help isolate the problem, review a composite test analysis and trends printout of classes conducted since measurement validation was terminated. Take action to reduce or eliminate high-miss or poorly performing items. Document the review and actions taken.

6.9.2. Review a composite analysis of measurement results on AETC Form 668, if computerized test analysis is not available. See AFMAN 36-2236, Chapters 25 and 26 for a discussion on applying and interpreting test item analysis results. Base frequency of the review cycle on student flow. Conduct at least one comprehensive review annually, including all data since the last test review, regardless of the number of students taking the test. Annual reviews may be conducted concurrently with the ARTT.

6.9.3. Identify high miss trends and problem questions, and revise questions or instructions as necessary.

6.9.4. Periodically review performance test results. Base frequency of the review cycle on student flow. Analyze the high miss items to determine if any corrective action is required and document any action taken. Conduct at least one review annually, and maintain the record of review and any action taken with the test or in the test cabinet.

6.9.5. Record the name of the reviewer and when the review was conducted.

6.10. Student Measurement Responsibilities. The TRG or designated level within the group:

6.10.1. Establishes local measurement procedures.

6.10.2. Provides staff supervision and surveillance to ensure student measurement is implemented and remains consistent with the intent of this instruction.

6.10.3. Establishes local requirements for measurement device approval, security, validation of tests, and periodic test analysis.

Chapter 7

COURSE CHARTS

7.1. Description. The course chart (CC) 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. Type 1 should be handled case-by-case. Use the TTMS CC template where TTMS is installed or AETC Form 449 if TTMS is not available. The 982 TRG may use a combined course chart and course training standard for Type 4 courses.

7.1.1. An approved course chart is required for Types 2, 3, 4, 6, 7, 8, C, A, W, and M courses. Refer to Attachment 10 for an example CC.

7.1.2. Use the standard training day, except BMT and Type 6 DL. The standard training day includes 8 hours of classroom/lab divided into eight 50-minute periods with 10 minutes of break time (400 minutes of instruction). It is acceptable to continue training beyond 50 minutes and accumulate break time if doing so enhances the learning activity. The compressed work schedule (CWS) standard training day in use at Keesler AFB is an 8-hour training day that includes 445 minutes of instruction and 35 minutes of break time. A total of 4,000 minutes of instruction must be provided during a 9-day training period. Variations from either standard training day must be requested by the group commander, coordinated through HQ AETC/A1MRT, and approved by HQ AETC/A3T, with a courtesy copy to 2 AF/TTOC. 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. Maintain approved waivers to the standard training day at the local level.

7.1.2.1. 1 Use the guidelines in Table 7.1 to identify shift times.

Table 7.1. Shift Time Identification Codes.

ITEM	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

7.1.2.2. The TRG commander may approve variations for field trips not to exceed 5 days total per course, and field exercises that extend beyond either standard training day.

7.1.2.3. Variations to the standard training day must include at least 6 hours of C/L time. Up to 2 hours per day may be supervised or directed study. Variations may not be used to justify additional resources or personnel. Examples of situations that might require a variation are equipment or facility constraints that necessitate a multiple shift operation or individual projects that require access to classified information.

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

7.1.2.5. 982 TRG courses designed and scheduled to be taught on other than a standard training day must be approved and annually validated by the 982 TRG/CC. These approvals and validations will be documented and filed in the course record set. Reporting the day-to-day deviations to the 982 TRG/CC is not required.

7.1.2.6. 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.

7.1.2.7. 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.

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

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

7.1.3.1. **Course Orientation and Introduction.** Maximum of 2 hours per course. Type 6 courses usually require less time. 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. **Note:** Type 6 courses orientation will include information in paragraphs 8.1.1.1, 8.1.1.2, 8.1.1.4, and any others as applicable.

7.1.3.2. **Course Feedback and Graduation.** Maximum of 1.5 hours per course. Course feedback surveys are administered twice during the BMT program: one shortly after arrival and the other shortly before departure. Each survey should take no more than 30 minutes to complete. In BMT, the graduation parade lasts 1 hour and serves as the course graduation. Course feedback is administered separately through trainee surveys and through the use of Lackland AFB Form 133, *Trainee Comment Sheet*. Type 6 courses may require significantly less time because there is no graduation ceremony upon course completion.

7.1.3.3. **Written Measurements and Feedback.** Should not exceed 1.5 hours per test. If extra time is needed, the block of instruction may be shortened to increase test time for that block (not to exceed 2.5 hours per test). Document justification for extended testing time and prepare a revised course chart for approval by the squadron commander or designated level within the squadron. Keep justification on file at the local level.

Typically written tests 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 and must accomplish the purposes set forth for written measurement in this instruction. Time allotted for progress checks is included in the objective times and will not be listed as a separate unit in the CC.

7.1.3.4. **Outprocessing appointments.** Maximum of 2 hours per course (as required). Type 6 courses are exempt from this requirement. In BMT, picking up orders serves as the trainee's outprocessing appointment and takes less than 2 hours. **Note:** This time does not earn manpower resources.

7.1.3.5. **Traffic safety education.** Maximum of 2 hours per course, when required by the TRW or TRG. **Note:** This time does not earn manpower resources.

7.1.4. Commander's call or graduate evaluation information will not be included as CC time.

7.1.5. 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.

7.1.6. Tentative CCs may include write-in changes based on interim validation findings if the changes are approved by the course TM. Write-in changes to final course charts, other than to correct approval/effective dates, typographical or grammatical errors, are not authorized.

7.1.7. BMT provides foundational Air Force knowledge in a wide variety of areas and some of this training may be duplicated by PME or other ancillary training (BMT is exempt in accordance with paragraph 4.8.5.2. of this instruction). BMT triennial review establishes initial accession training requirements.

7.2. Developing Course Charts:

7.2.1. Show supervised and directed study hours separately from C/L hours on the TTMS CC template or AETC Form 449**.**

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

7.2.3. Identify tentative CCs on the course design and development database CC template or the AETC Form 449 by centering the word "Tentative" at the top margin. This may be typed, stamped, or handwritten.

7.2.4. Include the following information in the remarks section of the course design and development database CC template or the AETC Form 449, as appropriate:

7.2.4.1. Effective date with class number.

7.2.4.2. Listing of other CCs that apply during a phaseout or validation period.

7.2.4.3. When applicable, document constraints that require a variation from the standard training day.

7.2.4.4. The name, office symbol, and phone number of the TM responsible for the accuracy of the information on the CC.

7.2.4.5. Appropriate wartime remarks if applicable, such as changing the length of training day and/or number of days per week.

7.2.4.6. Motivational training will not be used unless a statement indicating usage is included in the remarks section. Adding motivational training to a course will require a new course chart and an ATP.

7.2.4.7. List piggyback courses in remarks section.

7.2.5. In Table 1 of the TTMS CC template, or the AETC Form 449, list only major items of equipment (engine, engine stand, etc.). Do not list administrative or course support type items. Major items of equipment would include those required for attainment of a training objective.

7.2.6. Prepare Table 2 on the back of AETC Form 449 or on plain bond paper if TTMS is not available. See Attachment 10 for an example.

7.2.7. Mark classified course charts, classified block and unit titles, and individual segments and paragraphs with the appropriate security classification in accordance with DoD 5200.1-PH, *DoD Guide to Marking Classified Documents,* 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.

7.3. Developing Wartime CCs. Wartime course chart designation is no longer required. Wartime courses will be developed as separate builds with wartime course numbers in the course design and development database on an as-needed basis when there are different tasks and/or equipment to be trained during wartime.

7.4. Contingency Delivery Plan. For interactive video teletraining (IVT) courses, or Web based courses, the CC will identify alternative delivery methods in the event of satellite or equipment/network failure.

7.5. Responsibilities. The training group or designated level within the group:

7.5.1. Forwards requests for variations to the standard training day on a course-by-course basis signed by the TRG/CC through HQ AETC/A1MRT to HQ AETC/A3T.

7.5.2. Provides guidance, expertise, and oversight for developing CCs.

7.5.3. Prepares, approves, and distributes CCs. 737 TRG/TSDE prepares, and distributes CCs with the approval of the 737 TRG/CC.

7.5.4. Coordinates (if designated by 2 AF as the OPR) CCs for standardized faculty development courses with other groups before approving CCs.

7.5.5. Emails final unclassified course charts to the following organizations: CCAF/DFCA (**Note:** Email CC with POI to **CCAF.CD@Maxwell.AF.Mil** at least 30 days prior to course start); MAJCOM formal training section; AFSAT/TOIS for Type 3 and 8 courses; local registrar (982 TRG exempt); local evaluations office (982 TRG exempt); local manpower and organization flight for Types 2, 3, and 7 courses (982 TRG AFSC awarding courses only); HQ AETC/A3T (HQ AETC/SGNU for medical AFSCs); and AFCFM (982 TRG AFSC awarding courses only).

7.5.6. Sends classified CCs and POIs together to AU/SSO, Attention: CCAF, 401 Chennault Circle, Maxwell AFB AL 36112-6428.

7.5.7. Maintains CC record sets in the course design and development database, where installed. Where TTMS is not installed, maintain electronic or paper record sets.

Chapter 8

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

8.1. Purpose. The POI is a course control document, organized by blocks and units in the preferred sequence of instruction. It lists the course objectives, needed support materials, and training time apportionment. Actual instruction times may vary due to class size or student ability differences. When separated into units of instruction, the POI becomes Part I of the lesson plan.

8.1.1. The POI includes a nonmeasured orientation (BMT covers overview and administration information through a series of weekly training briefings and orientations). Orientation covers at least the following:

8.1.1.1. Course overview and administration.

8.1.1.2. Student feedback program.

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

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

8.1.1.5. Instructional material types and uses.

8.1.1.6. Training material, resource, and energy conservation.

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

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

8.1.1.9. Sexual harassment and assault reporting, professional relationships, and hazing (describe required conduct standards and point out AETCVA 36-6, *Points of Contact for Students and Trainees* [AETC VA36-6 not required for Types 6 and 7 courses]).

Note: Type 6 course orientation includes paragraphs 8.1.1.1, 8.1.1.2, 8.1.1.4, and others if applicable.

8.2. Development:

8.2.1. Prepare a POI for all formal courses developed and conducted by AETC.

8.2.1.1. Delete

8.2.1.2. Delete

8.2.1.3. Delete**.**

8.2.2. Ensure the POI is approved before the first class starts.

8.2.3. Ensure field trips and outside the classroom visits support specific objectives as necessary training activities. In the instructional guidance, identify how objectives will be met and measured if the field trip cannot be accomplished.

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

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

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

8.2.4.3. Incorporate all annotations into the next published change.

8.2.5. The following guidance applies to POI preparation:

8.2.5.1. Integrate the following:

8.2.5.1.1. **Job-oriented Safety.** See applicable AFOSH standards.

8.2.5.1.2. **Environmental issues.** Include pollution prevention awareness.

8.2.5.1.3. **Publications Awareness.** Emphasize that compliance with instructions is mandatory.

8.2.5.1.4. **Risk Management (RM).** Where appropriate, weave principles throughout the core curriculum in all courses.

8.2.5.1.4.1. For each teaching step or activity involving any hazard that could cause mission degradation, injury, illness, or system damage, and for AFSCs 1C2X1, 1C4X1, 1T2X1, 1W0X2, 13DX, and 13LX include RM assessment worksheet(s) from the training plan or course record set (for courses not requiring training plans, e.g. Type 2) in the POI instructional guidance or 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 an 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. (See attachment 16for an example of the specificity required.)

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

8.2.5.1.4.3. TRGs develop local procedures to perform RM assessment based on current conditions each time the affected activity is conducted.

8.2.5.1.5. **Air Force Doctrine.** Air Force instructors (active duty and civilian) will introduce Air Force doctrine to Air Force students in all initial skills courses. Examples of ways to integrate doctrine are provided by the Air Force Doctrine Center. Also see AFI 10-1302, *Air and Space Doctrine Education.*

8.2.5.2. Instructional guidance must require instructors to present Air Force core values to all Air Force students. Throughout the course instructors will weave core values information into 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.

8.2.5.3. Integrate the Air Force technical data system and other AFSC applicable publications throughout the course.

8.2.5.4. Integrate physical conditioning standards as BMT curriculum performance objectives. See AFI 10-248, *Fitness Program*, for current standards.

8.2.6. Include one or more objectives in each instructional unit or module, except the introductory unit. Supporting teaching steps are optional.

8.2.7. Refer each objective to the TS element(s) supported, and underline the element at which point students attain the TS specified proficiency level/behavior.

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

8.2.7.2. Do not underline (finalize) an STS or CTS item 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 blocks or WOT.

8.2.7.3. Document the POI to TS correlation to illustrate in the measurement plan which objectives support and satisfy each TS element. Prepare a TS–to-POI correlation for Type 4 courses. The measurement plan will serve as a TS-to-POI correlation.

8.2.8. Use the following codes to indicate the type of student measurement for each objective: PC - progress check; P - performance test; W - written measurement.

8.2.9. Show support materials and guidance for each instruction unit or module. Guidance should include the MIR/student ratio, MIR hours required, how MIR will be used, when to accomplish progress checks, and general lesson conduct.

8.2.10. Instructional guidance should contain enough support information to enable new instructors to present each objective effectively and efficiently.

8.2.11. Describe how and when motivational training may be applied within each unit of instruction. List approved methods, limitations and desired results.

8.2.12. Use the TTMS POI template or AETC Form 133, *Plan of Instruction Lesson Plan - Part I*, if TTMS is not available. A computer-generated document may be used if all required information is included and appropriately identified.

8.2.13. When two or more courses have identical contents (piggyback courses or an MTT), identify in a separate memo which is the parent course and which piggyback courses will be taught using the parent course documents. Piggyback courses will need separate TTMS builds/flows. When officers and enlisted personnel attend a course, separate course numbers and course builds are required to ensure accurate student tracking and accounting (does not apply to foreign officers).

8.3. POI Responsibilities. Provide POI development guidance, expertise, and oversight; print and distribute POIs; approve new/revised POIs and POI changes prior to use (curriculum

manager is 982 TRG authority); maintain electronic or paper POI record sets (it is not necessary to maintain a copy of a published document and camera-ready copy of the same document).

8.4. Distribution. Email unclassified POIs and POI changes to CCAF (**ccaf.cd@maxwell.af.mil**), the specialty AFCFM, the local manpower office, HQ AETC/SGU (for medical courses) and HQ AETC/A3TM (982 TRG courses).

8.5. 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 to AU/SSO, Attention: CCAF, 401 Chennault Circle, Maxwell AFB AL 36112-6428.

8.6. Multiple Instructor Requirement:

8.6.1. List MIR utilization under support materials and guidance. **Example:** Safety/Supervision (3).

8.6.2. Use only qualified personnel as primary instructors or to certify student course objective achievement. An individual who has not completed the basic instructor course or military training instructor school, and who is not subject-matter qualified may be used to satisfy such MIRs as safety. Do not use students to fulfill the MIR.

8.6.3. The training flight/detachment commander or chief may waive the POI MIR requirement. The waiver must be in writing and applicable for one class providing the unit objectives can still be achieved. This may require a training day extension or other temporary training situation modification. The training flight/detachment maintains MIR waiver records for 12 months. Subsequent waivers for classes in the same course require Squadron Commander approval (cannot be delegated)

8.6.4. If the MIR cannot be met and a waiver is not granted, training will not be conducted and a training deficiency will exist.

8.7. LP Part II, Teaching Guide:

8.7.1. An LP is a detailed outline of information and activities used by instructors to conduct the training prescribed in the POI. Use the corresponding POI page as the LP cover page. The POI page indicates LP approval.

8.7.2. The instructor uses the LP to guide training activities. An LP is not required for Type 6 courses designed for use without an instructor. There are three types of LPs: Master, personalized, and station.

8.7.2.1. A master LP is not personalized, and is used to control and standardize course instruction (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 LPs at the course level. This set may be the master LP unless the master set is maintained elsewhere. The master LP does not require a signature, and may be on computer, electronic media, or in TTMS. Merging Part I and II is not required for electronic master LPs.

8.7.2.2. A personalized LP includes information to aid the instructor and supplement the master LP. When signed by the supervisor, the LP is determined to be accurate, applicable and adequate for presentation, and the instructor is authorized to teach from it.

8.7.2.3. 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 changes classification. A station LP may include support material and must be signed by the Instructor Supervisor.

8.7.3. An approved LP has been reviewed at least annually by the instructor supervisor who certifies the following:

8.7.3.1. The LP is current and adequately outlines the subject covered.

8.7.3.2. The LP includes adequate support material for student objective achievement.

8.7.3.3. The LP includes adequate technical information for standardized objective instruction.

8.7.3.4. Personalized LP information is accurate, applicable and adequate.

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

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

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

8.7.7. Instructors may use station LPs where authorized, but personalized LPs are encouraged. Personalization must include entries for the introduction and conclusion, and right column entries that amplify and relate to the teaching steps.

8.7.8. Prepare an LP to guide training activities, even if a POI is not required.

8.7.9. 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.

8.7.10. For courses taught entirely 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.

8.7.11. Use a three-part format for LPs. Course time is tagged to objectives and aggregated to the unit, block, and course. The introduction, body, and conclusion do not have specific time allocations. Include student break time in accordance with paragraph 7.1.2.

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

8.7.11.2. **Body.** Includes the presentation, application, and evaluation, as applicable. BMT may add processing, fitness, personal needs, transit, and other topics, as applicable. Identify instruction methods in the lesson plan.

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

8.7.12. Use the TTMS 2-column or 2-page format LP outline. Identify course objectives, teaching steps, technical information (including testable information) in the left column. Support material and personalization go in the right column of the 2-column format, and on the second page of the 2-page format. **Note:** When using a 2-page format for BMT, personalize in the right margin rather than on a blank page.

8.7.13. Include sufficiently detailed support elements with each objective and teaching step to facilitate beginning instructor use. Indicate planned instructional aide use. All teaching steps involving any hazard that could cause mission degradation, injury, illness, or system damage and AFSCs 1C2X1, 1C4X1, 1T2X1, 1W0X2, 13DX, 13LX will be identified with an RM tag in the TTMS course design and development database. Include a reference in the right column or right page of the lesson plan to the RM assessment worksheet found in the POI instructional guidance, or as a POI attachment (see Attachment 16). The level by which the RM tags are identified in LP, Part I or LP II will be determined by the training group when teaching steps are not part of the instructional design of the course, and for T.O. based courses. **Note:** Each time the activity is conducted, perform an 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 (See attachment 16). TRGs develop local procedures to perform RM assessment based on current conditions each time the affected activity is conducted. Maintain assessment until the training plan is superseded.

Figure 8.1. RM LP Tag.

(d) Open Reservoir Swim	
1 Identify the Hazard	
2 Assess the Risk	Check Instructional Guidance in POI for risk assessment template worksheet. **Note:** Each time the activity is conducted, perform an RM assessment based on current conditions.

8.7.14. Identify station LPs as such, i.e., used by all instructors at a station, lab, or position. It is not personalized.

8.7.15. To identify personalized LPs, enter the instructor's name in the POI template or AETC Form 133 name block. Personalized LPs will include entries in addition to the introduction and conclusion.

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

8.8. LP Responsibilities. Provide LP development guidance, expertise, and oversight; specify coordination and approval procedures; establish LP currency control procedures; maintain all LP

record sets in the course design and development database, where installed. Where the database is not installed, maintain electronic or paper record sets.

Chapter 9

STUDENT INSTRUCTIONAL MATERIALS

9.1. Purpose. To help students complete training activities or to augment or supplement commercial text, TOs, etc..

9.2. Description. Paper based handouts, study guides, or workbooks, or technology based aids such as programmed texts, videos, audio tapes, computer-assisted programs, or note-taking devices.

9.3. Writing Standards:

9.3.1. Write technical training publications in plain English to ensure written material is at the appropriate target audience reading level.

9.3.1.1. Use simple, direct, and clear words.

9.3.1.2. Avoid abstractions.

9.3.1.3. Explain technical terms.

9.3.1.4. Write in the active voice.

9.3.1.5. Write simply and concisely. Use short, familiar words and short sentences and paragraphs. Sentences will be grammatically correct and preferably no more than 20 words. Preferred paragraph length is 10 to 15 lines.

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

9.3.2. Present the material in a logical, orderly sequence.

9.3.3. Organize simply. Avoid complicated subparagraphs (convert to main paragraphs if possible).

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

9.3.5. 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.

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

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

9.3.8. Provide a bibliography for referenced material. Follow copyright laws.

9.4. Review. Before publishing or reprinting student instructional materials or releasing computer-based products, review to ensure material meets the following standards:

9.4.1. Is necessary and consistent with Air Force doctrine, existing law, and national, DoD, and Air Force policies.

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

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

9.4.4. Is directed to the appropriate audience.

9.4.5. Does not conflict with other publications.

9.4.6. Does not include information that could cause adverse public opinion.

9.4.7. Uses gender-neutral language; in good taste.

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

9.4.9. Does not include classified information unless it is an authorized classified lesson. Prepare classified student instructional materials according to appropriate security directives.

9.4.10. Does not included copyrighted material without a release from the copyright holder. Refer to AFI 51-303, *Intellectual Property - Patents, Patent Related Matters, Trademarks, and Copyrights,* and to the Staff Judge Advocate for proper procedures concerning use and of copyrighted and trademarked material.

9.4.10.1. Retain a copyright releases on file. Provide a copy to SAF/GCQ, in accordance with AFI 51-303.

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

9.4.11. Includes a record of coordinating officials and their reviews (i.e., AF IMT 1768, *Staff Summary Sheet*; memorandum, etc.).

9.4.11.1. Annotate record if classified material is used.

9.4.11.2. Annotate record if document contains copyrighted material. Identify the copyright release location.

9.5. Printing and Distribution:

9.5.1. Requests for AETC training materials from another Air Force or Government agency must be coordinated through the requesting agency's parent major command and submitted to HQ AETC/A2/3/10 TPM (HQ AETC/A3T/A3R/A3Z) as appropriate. Appropriate HQ AETC division will coordinate with the TRG TM to make the release determination. For copyrighted materials, refer to the original copyright owner prior to release.

9.5.2. AETC will not release any AETC-designed measurement devices.

9.5.3. 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. 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.*

9.6. Cost Effectiveness:

9.6.1. When possible, use available standard or specialized publications, such as AFIs and TOs, rather than locally developed student instructional materials. Extract, for reproduction

only, those pages necessary for training. Use commercial publications (such as textbooks or reference books) when they support course objectives.

9.6.2. TOs, specialized publications, technical data extracts, and commercial publications should be as current as those in an operational unit. Maintain current training libraries unless changes adversely affect training equipment, objectives, techniques, or curriculum compatibility. Maintain a current master reference copy of each training library title in the flight, squadron, or family group. TOs and publications used for 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." 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 filed until equipment and/or curriculum is updated. Continue to file subsequent safety and other significant changes. 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." Periodically review TOs marked "For Training Purposes Only" to ensure all safety and significant changes are posted. TOs and publications used by the 982 TRG to train tasks to the performance level must be current. Technical data extracts used to support performance objectives must be from current TOs and publications.

9.6.3. Reuse locally developed student instructional materials when possible.

9.7. Technical Data. 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.

9.8. Preparation:

9.8.1. For detailed guidance on preparing student instructional materials, consult the technical writer resident course. Build the document shell with the course design and development database template, and edit as necessary. When using the database, the TTMS template is the standard, but does not add the disclaimer or supersession line on all documents (see paragraph 9.8.2).

9.8.2. Prepare the cover of all locally developed training literature on bond paper (if for printing) and include the following:

9.8.2.1. Type of student training material: Study guide (SG); workbook (WB); student text (ST); student handout (HO); appraisal (A); study guide and workbook, (SW); programmed text (PT).

9.8.2.2. Course identifiers for courses supported.

9.8.2.3. Text title.

9.8.2.4. Publication date.

9.8.2.5. OPR identification.

9.8.2.6. Disclaimer: "Designed for AETC course use. Not intended for use on the job." **Note:** Not required on Technical Writer Resident Course instructional materials.

9.8.2.7. 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."

9.8.2.8. Bibliography of referenced materials. When the document includes copyrighted material, include a copyright statement on the cover page. Specific requirements may be identified by the copyright release grantor.

9.8.3. Order at least a 12-month supply of instructional materials if changes are not anticipated and storage space is available. If documents are exceptionally large, subject to frequent change, storage space is limited, or funding is limited document and order as required.

9.8.4. To develop computer-based instruction materials, use AFH 36-2235, Volume 5, *Information for Designers of Instructional Systems – Advanced Distance Learning: Instructional Technology and Distance Learning.*

9.9. Annual Review. OPRs conduct an annual review and/or special review before reproducing course materials to maintain material currency. If required locally, OPRs record results in the annual course review. Reviews are documented by memorandum, course, or self-inspections. All Type 6 course materials will be reviewed annually. Annual reviews may be incorporated into the ARTT process.

9.10. Responsibilities. Establish procedures that comply with the guidelines established in this instruction to develop and use locally prepared student instructional materials. Maintain electronic or paper locally developed instructional material record sets.

9.11. Type 6 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, *Information for Designers of Advanced Distributed Learning: Instructional Technology and Distance Learning*; AETCI 36-2208, and AETCI 36-2209.

9.12. Type 6 DL Instructional Materials:

9.12.1. AETC offers exported 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 appropriate media with each lesson objective. Frequently courses use a combination of media.

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

9.13. Type 6 DL Responsibilities. The TRG or designated level within the group will:

9.13.1. Establish a group DL POC to work DL issues, according to AETCI 36-2208.

9.13.2. Establish procedures for analyzing, developing, delivering, and using DL instructional materials, according to AETCI 36-2208 and AETCI 36-2209.

9.13.3. Keep record sets of locally developed DL materials (paper-based or electronic). It is not necessary to maintain a copy of the published document and the camera-ready copy of the same document.

Chapter 10

VALIDATION OF COURSES

10.1. Purpose:

10.1.1. Helps identify and correct instructional system imperfections. Use the validation process to determine if instructional system content, sequence, methods, and media decisions are sound. Decisions are sound if minimal time, money and other resource investments result in desired student behavior changes.

10.1.2. Ideally, validation is a concurrent and continual process applied as course portions are developed. Validation planning begins early in course development, addressing all aspects of the course efforts.

10.2. Procedures:

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

10.2.2. Before students arrive, validate as much of the course as possible, such as content, sequence of objectives, visual aids, and training media.

10.2.3. Tentative course documents and student materials may be used until course validation is completed, appropriate course changes have been made, and final documents are published. Write-in changes, based on interim validation findings, are authorized with OPR concurrence. Use a formal POI change memorandum for write-in changes. When course validation is completed, have the local MO re-price any course parameter changes, and include in the training plan.

10.2.4. Parent course validation validates piggyback course if the piggyback course has not changed.

10.3. Planning:

10.3.1. Use at least three classes for validation. Fewer may be used if a three-class validation would take more than a year to complete. For Type 6 self-paced courses, validation requires at least 30 students. IVT course validation requires at least three broadcasts with a minimum of 30 students. Conduct validation classes under actual training conditions. Validate new courses and major revisions that will be taught more than twice. Use the minimum number of classes to validate the course and measurement.

10.3.2. 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 course block is revised, plan to validate only that block unless the changed block has a significant impact on course flow and sequence. Validation plans include the following:

10.3.2.1. Start and end dates, and classes to be used.

10.3.2.2. Blocks, modules, and units to be validated.

10.3.2.3. Data to be collected and means of collection.

10.3.2.4. Who will analyze the data and prepare the validation summary report.

10.4. Data Collection and Analysis:

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

10.4.1.1. Student feedback data. Include student comments about course strengths and weaknesses.

10.4.1.2. Document training development and instructor personnel comments and recommendations relating to items examined during validation.

10.4.1.3. Measurement data, including appraisal results (kept only during validation period); progress check results, written measurement results on completed AETC Form 668 or a computerized test analysis; and performance test results on completed AETC Form 98 or locally approved checklist.

10.4.1.4. Student washback and academic elimination data.

10.4.1.5. Student remediation data (summary of specific objective remedial training).

10.4.1.6. Resource problems or utilization data; summarize shortfalls or constraints.

10.4.1.7. Student background data.

10.4.2. 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.

10.5. Reports. A validation report documents actions taken to improve the course, and helps prevent duplication of effort. Complete the validation report within 30 work days after completion of the last validation class.

10.5.1. Ensure the validation report includes the following:

10.5.1.1. Process summary. Include validation plan variations (with reasons for the variations, number of classes, and students used), and control document and instructional material interim changes made during validation.

10.5.1.2. Constraints. Identify any known resource constraints before or during validation.

10.5.1.3. Significant findings summary. Include the number of washbacks and eliminations, the block or unit where the action occurred, and time allocations, instructional materials, and instructor adequacy.

10.5.1.4. Conclusions and corrective actions. Summarize the validation process ability to provide data needed to finalize the course. Include changes needed to finalize control documents, instructional materials and equipment, and actions taken or planned. Identify the final POI planned implementation date, recommended open item estimated completion dates, and the POC who should correct findings.

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

10.5.3. Maintain the validation report with the TM course record set. After the validation report is written, source data need not be maintained.

10.6. Responsibilities. TRGs or designated levels establish procedures to validate courses, and ensure problems are identified, corrected, and documented.

10.7. Delete.

Chapter 11

TRAINING DEFICIENCIES

11.1. Purpose. Report training deficiencies to alert managerial personnel and gaining organizations if students did not receive the training documented in the training standard.

11.2. Training Deficiency Report:

11.2.1. When a training deficiency occurs, submit a training deficiency report to 2 AF/TTOC, HQ AETC/A3T, (HQ AETC/SGNU for medical AFSCs), and AFCFM (see Attachment 13 and Attachment 14). When training specified in the training standard cannot be provided before graduation, submit a training deficiency memo to the student's gaining organization. Annotate the deficiency in the TTMS student training report remarks section or on an AETC Form 156. 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.

11.2.1.1. For training deficiencies expected to exist longer than one class, submit the memo after the first class graduates. Include the projected number of students and classes that will be affected through the remainder of the fiscal year.

11.2.1.2. When a training deficiency is corrected, send a written notice of deficiency termination to the original report addressees.

11.3. Responsibilities:

11.3.1. 2 AF provides support to correct equipment, personnel and facility-related deficiencies. HQ AETC/SGNU provides support for medical AFSCs.

11.3.2. The TRG or designated level establishes procedures to report training deficiencies, and to correct deficiencies when they occur.

Chapter 12

NONRESIDENT TRAINING MATERIALS

12.1. Purpose. Used at operational bases by students in self-study, group-study or combination mode. Materials may support CDCs or SCs. **Note:** These training materials are not procured through or approved by the publications manager.

12.1.1. TRG SMEs prepare Air Force CDCs, SCs and other training materials, which are used Air Force wide. The terms preparing agency and training group are interchangeable.

12.1.2. All preparing agencies (except Goodfellow AFB for cryptologic and certain other CDCs) send their CDC and SC manuscripts to AU/A4L for educational review, edit, test construction, publication, and administration. Goodfellow AFB reviews, edits, and distributes cryptologic and certain other CDCs, while AU/A4L handles unclassified aspects of CDC administration, including enrollment, activation, deactivation, end of course automated test correction and reporting via answer sheet, pass/fail course trend analysis, and publication of CDC advertisement catalog entries.

12.2. Nonresident Materials:

12.2.1. **CDCs.** Self-study distance learning courses that provide airmen with fundamental AFS knowledge. CDCs directly support the Air Force OJT program and WAPS SKTs.

12.2.2. **SCs.** Self-study distance learning courses that extend Air Force school educational and training capabilities to eligible personnel worldwide. Used to meet requirements outside the scope of CDCs. **Note:** Type 6 DL is not included in this chapter because TRWs prepare, distribute, and administer Type 6 course materials according to AETCI 36-2208 and as prescribed in other applicable sections of this instruction.

12.3. Air Force OJT Program Support:

12.3.1. CDCs provide career knowledge upgrade requirements listed and coded in the current STS.

12.3.2. CDCs furnish only the career knowledge component of STS tasks. When CDC content cannot be developed to correlate with STS knowledge levels, document the reasons in the CDC case management file. Consult AU/A4L about using multimedia enhancements to achieve designated proficiency codes and knowledge levels.

12.3.3. Notify the AFCFM if STS requirements in the CDC columns cannot be achieved, requiring an STS revision.

12.4. CDC Requirements:

12.4.1. A current and accurate CDC is integral to an AFS. Therefore, consider CDCs during training planning, STS preparation and at U&TWs. An AU/A4L representative and CDC writers should participate in these processes.

12.4.2. Establish and document a CDC requirement in the CFETP, including a customer need date. When a CDC requirement is generated by factors that do not result in a new or revised STS or CFETP, the AFCFM must approve in writing.

12.4.2.1. CDCs are mandatory for all AFS 5-skill levels, unless waived by appropriate AFCFM.

12.4.2.2. Do not create CDCs solely to support SKT development.

12.4.3. When considering a CDC or SC as an option to meet training needs, see paragraphs 4.4.6.6.2 through 4.4.6.6.2.3, and consider the following additional factors:

12.4.3.1. AFS future population trend.

12.4.3.2. Proposed subject matter security classification.

12.4.3.3. AFS life-cycle training requirements.

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

12.4.3.5. CDC scope relative to resources required.

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

12.4.3.7. Number of personnel who will use the CDC.

12.4.3.8. Using command available in-house training.

12.4.3.9. Type of AFS. If equipment oriented or procedurally oriented and subject to frequent change, consider Air Force inventory equipment stability.

12.5. Writer Resources. See AFI 36-2101 for writer qualifications, selection, and assignments criteria. Positions are authorized in the TRGs to support CDC-related projects, but management action is essential to ensure trained personnel are available for mission accomplishment.

12.5.1. Early identification of the need for and assignment of qualified personnel to a CDC project is essential to OJT and SKT programs. Resource requirements must also be considered. CDC writers attend 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.

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

12.5.3. TRGs may request MAJCOM help prepare a new or revised CDC.

12.5.4. During preproduction and production, CDC writers will not perform duties that negatively impact approved course chart submission dates. CDC writers will provide squadron leaders and the group CDC manager with a monthly production status update, and will notify them immediately of potential delays.

12.6. General Preparation. The AU/A4L *Guide for Authors* establishes CDC preparation standards.

12.6.1. **Approving Official Certification.** The TM uses AETC Form 107 to approve a CDC or SC issue or continuance, and certifies the publication. Certification criteria include the following:

12.6.1.1. Air Force mission necessity, and consistent with Air Force doctrine, existing law, and national, DoD, and Air Force policies.

12.6.1.2. Current, technically accurate, and adequate.

12.6.1.3. Directed to a specific audience.

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

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

12.6.1.6. Does not include information that could adversely affect public opinion.

12.6.1.7. Uses gender-neutral language; maintains propriety and good taste.

12.6.1.8. Does not imply the Air Force endorses, favors, or restricts commercial product, commodity, or service use.

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

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

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

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

12.6.3. **Copyrighted Material.** Obtain permission to use copyrighted material during the writing project planning stage. Keep releases on file. Provide CDC and SC release copies to AU/A4L, and a copy with the manuscript to SAF/GCQ, according to AFI 51-303. Refer to AFI 51-303 and to the Staff Judge Advocate for proper procedures concerning use, and obtaining releases for use, of copyrighted material and trademarks.

12.6.4. **Classified Material.** Prepare classified publications according to Air Force and DoD security requirements. Ensure manuscripts processed through AU/A4L do not contain classified information.

12.6.5. **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).

12.6.5.1. 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.

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

12.6.5.1.2. Unit review exercises and CEs must also measure material to the correct STS proficiency level.

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

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

12.6.5.4. Career ladders with multiple AFSs and/or shreds have STS tasks common to several or all ladder specialties. Some STS tasks are 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 AU/A4L.

12.7. CDC Deactivation. Deactivation requires AFCFM approval. When a course review, U&TW, or other event identifies a CDC as no longer required, the preparing agency sends the deactivation rationale and alternate study references to the appropriate AFCFM. AFI 36-2201, Volume 5, explains CDC activation and deactivation procedures. If approved, the AFCFM instructs AU/A4L to deactivate the course, and requests HQ AFPC/DPPAT submit a training requirements message to field units. **Note:** Coordinate all messages pertaining to CDC activation and deactivation with AU/A4L prior to field release.

12.8. Need Dates:

12.8.1. A command goal is to produce quality nonresident training materials by customer need dates.

12.8.2. Ideally, CDC projects resulting from an STS change that also impact resident training should be activated by the graduation date of the first students from the associated resident course.

12.8.3. CDC production involves two critical dates: 1) CDC delivery date, by which time the CDC writer must deliver the final CDC volume or its subset to AU/A4L; 2) customer need date, by which time the CDC should be available in the field.

12.8.4. The AFCFM normally establishes the customer need date for the CDC in the CFETP and U&TW minutes after consulting with TM, AU/A4L, and CDC writer to ensure that customer need date can be realistically achieved.

12.8.5. To meet the customer need date, the CDC writer establishes dates to deliver new and revised volumes to AU/A4L, based on estimates in AFI 36-2201, Volume 5. The CDC writer identifies time compression or delay sources that may affect delivery dates. The AFCFM may authorize adjustments. **Note:** An actual CDC activation date depends on all volumes being printed and available for distribution. AU/A4L will activate a course as close to the need date as possible, but a precise date may not be feasible.

12.8.6. Document the customer need date, delivery to AU/A4L date, and manuscript submission dates in the CDC CC, AETC Form 469, *Career Development Course Chart*, and the production plan (See Attachment 11 for instructions). When AETC Form 469 is, not used, the replacement form or document should be similar enough that receiving organizations will understand it. Provide copies of all course documents to AU/A4L and AFOMS/TE, which track CDC production.

12.8.7. Change supplements are normally prepared within 30 calendar days from an identified need. Unless a safety issue or pressing technical requirement exists, add supplements to course materials the next time the course is packed. Prepare AETC Form 469

and send copies to AU/A4L and AFOMS/TE 30 calendar days before submitting a change supplement to AU/A4L.

12.8.8. The TRS commander approves 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. The CDC writer or TDE notifies the TM of any submission date deviations. If submission dates cannot be met, the TRS commander signs a production slippage memorandum that includes a revised production plan with new submission dates and an explanation of factors that affected production. If the customer-need date agreed upon at the U&TW cannot be met, the TM notifies the AFCFM.

12.9. Volume Revisions and Changes. Revise individual volumes when posting changes to the entire course (excluding typographical errors) takes more than an hour. After determining the extent a CDC must be revised or upon identifying new CDC content, and before preparing text or illustrations, contact the AU/A4L course development team to discuss the most efficient preparation strategy.

12.10. Priority Processing:

12.10.1. When a CDC revision is considered critical, the preparing agency sends a written priority assignment request through the TM to AU/A4L. The request must include justification to support the requirement.

12.10.2. Changes that affect personnel safety or may result in equipment damage are authorized first priority and do not require separate action. The preparing agency submits a change marked “first priority” and submits the priority request memorandum of transmittal to AU/A4L.

12.10.3. AFOMS/TE, in conjunction with AU/A4L, 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.

12.11. Planning:

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

12.11.2. 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.

12.12. 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.

12.13. Manuscript Preparation:

12.13.1. The Guide for Authors provides guidance to prepare manuscripts. AU/A4L, Maxwell AFB, Gunter Annex AL 36118-5643, publishes and distributes this guide to writers. The guide can be found on the AU/A4L homepage under the Writer/Manager link.

12.13.2. AU/A4L prescribes the format and provides directions for developing manuscripts (except classified CDCs) in the Guide for Authors. Failure to adhere to format standards will be grounds for rejection of materials/manuscripts.

12.13.3. Submit volume manuscript to AU/A4L on or before the established submission date, as documented on the AETC Form 469. To assist AU/A4L editorial staff, submit each volume upon completion.

12.14. Duplication of Other Air Force Training Programs. 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.

12.15. Prepublication Quality Control:

12.15.1. 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, and sign block 6.

12.15.2. 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.

12.15.3. A CDC writer, other than the author, conducts the quality standards 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 Guide for Authors. CDC manuscripts must be technically accurate, grammatically sound, error free, and include all illustrations.

12.15.4. 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.

12.15.5. In the memorandum of transmittal, identify a new writer's first manuscript so AU/A4L can provide quick review and feedback.

12.15.6. AU/A4L instructional system specialists review for instructional adequacy, organization, readability, style, format, and conformance to prescribed methodology. They critique the material and suggest improvements for more effective presentation. AU/A4L will honor a reviewer by-name-request when possible. AU/A4L sends manuscripts that do not meet prescribed standards back to the CDC writer if correction requirements cannot be communicated by telephone or email. The CDC writer revises the manuscript and returns it

to AU/A4L. AU/A4L reviewers provide writers with additional guidance on processing factors, subject matter, text, and graphics.

12.15.7. Conduct a prepublication review for technical accuracy of each CDC examination prepared and forwarded by AU/A4L. Changes are made by telephone and then 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 CEs and accompanying materials according to AU/A4L test review and change procedures. Communicate directly with the AU/A4L course development team responsible for the specific course. Mail examinations according to AFI 36-2605, *Air Force Military Personnel Testing System.*

12.15.8. AU/A4L 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.

12.16. Reviews. An initial, annual or special review approval authorizes continued CDC use and establishes its currency, technical accuracy, and information adequacy. Use AETC Form 107, *Annual or Special Review Record,* to document review results.

12.16.1. **Initial.** The CDC writer reviews the published CDC upon receipt from AU/A4L to ensure consistency and technical accuracy. Mark the AETC Form 107 special review block and annotate the remarks block to document the initial review. Document errors but make no other text changes at this point.

12.16.2. **Annual.** on the terminal volume publication date anniversary, 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 printed. Continuing a CDC (or SC) with fewer than 26 enrollments per year must be justified for cost effectiveness. To prevent excessive or inadequate stock on hand, inform AU/A4L, by memorandum, when a program change will significantly alter how many Airmen use the CDC.

12.16.3. **Special.** Do not wait for a scheduled annual review if a significant AFSC change is implemented. Conduct special reviews when warranted by a career field change, an STS is published or revised, requested by AU/A4L because of a high failure rate or low enrollment, and/or in conjunction with an OSR review. Check AU/A4L volume review records to identify possible recommendations or future revisions. A special review will not replace a scheduled annual review

12.17. Field Evaluation:

12.17.1. AFI 36-2201, Volume 5, requires continuous evaluation to determine how effectively a CDC imparts specific career development knowledge. AU/A4L collects quality data from two sources:

12.17.1.1. **CDC Survey.** Student and supervisor surveys, available on the HQ AU Extension Course Program Web site, are emailed directly to students and supervisors. Surveys measure student and supervisor satisfaction with the instruction quality and applicability, and service efficiency, and solicit improvement input. Personal information is maintained according to Air Force policy and federal law. Extension Course Program

personnel compile responses and make the data available to AFCFMs and preparing agencies.

12.17.1.2. **Course Examination (CE).** AU/A4L collects data on and develops CE statistical analysis. Statistical analysis indicates overall student CE performance, and shows individual CE item performance. AU/A4L reviews the analysis and provides it to the course author, who uses it to evaluate course effectiveness and determine course component disposition.

12.17.1.2.1. CDC writers review CE analysis reports and identify causes and corrective actions for discrepancies identified by AU/A4L instructional systems specialists. Refer to the Guide for Authors for guidance on reading analysis reports.

12.17.2. Review continuous evaluation results for trends and act as appropriate.

12.18. Administrative Procedures:

12.18.1. **Reference Publications:**

12.18.1.1. **AU/A4L.** AU/A4L automatically distributes current CDCs, AU/A4L course materials, shipping lists, change supplements, and other materials to course writers. Additional copies of AU/A4L materials may be purchased. See the AU/A4L catalog on the AU/A4L Web page for purchase instructions. AU/A4L distributes current DL materials, course materials, shipping lists, change supplements, and other materials to responsible preparing agencies as needed (determined by AU/A4L). Use DD Form 1150, *Request for Issue or Turn-in*, to request additional materials.

12.18.1.2. **Other Armed Forces.** Writers research other services' correspondence courses and procure correspondence materials (catalogs and courses) as required by AFI 36-2230(I).

12.18.2. **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.

12.18.3. **Student Inquiries.** AU/A4L forwards technical inquiries to the preparing agency for reply. Writers should promptly answer student inquiries. Document student telephone and email inquiries. CE question inquiries require the same safeguards as the CE.

12.18.4. **Packaging (Except Classified CDCs).** Protect camera-ready material. Pack CDC manuscripts in containers strong enough to protect them during transit. Wrap packages according to Air Force and postal requirements. When possible, mail CDC manuscripts on digital media using locally prescribed procedures. Use AF Form 74, *Communication Status Notice/Request***.**

12.18.5. **SKT Development Support.** If CDCs have been processed at AU/A4L or are being revised before the scheduled SKT development date, AU/A4L will forward four copies of the printed volume and 2 copies of the volume on CDROM to AFOMS as soon as it is printed and delivered to AU/A4L. At least one copy remains at AFOMS on completion of the project. SKT development schedules are often based on the scheduled CDC manuscript availability dates. Submitting CDC manuscripts on schedule is critical to SKT support. Inform AFOMS/OMD and AU/A4L of manuscript submission delays in submitting

manuscripts so they can determine if published CDCs will be available for the scheduled WAPS testing cycle.

12.18.6. **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.

12.18.6.1. AFOMS/TE forwards an SKT/CDC/STS compatibility critique with comments and recommendations to the CDC writer.

12.18.6.2. The CDC writer reviews the critique, takes necessary corrective action, and provides an itemized critique response to TM and AFOMS/TE. Responses are used by the next SKT writing team.

12.18.6.3. The CDC writer sends a copy of the critique response to the group evaluation section and the AFCFM.

12.19. SCs:

12.19.1. New SCs require Air Force-level approval. Submit new SC production plans o the appropriate AFCFM. Production plans for revisions are approved locally.

12.19.2. Prepare SC production plans in the same format as CDC production plans, but 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.

12.19.3. Unlike the CDC, the SC is not normally based on an STS or used as a WAPS source reference .

12.19.4. Do not prepare new SC CCs until the production plan has been approved.

12.19.5. When an SC is no longer required, send a deactivation request with detailed rationale to the AFCFM. Upon approval, notify AU A/4L in writing.

12.20. Responsibilities:

12.20.1. HQ AETC/A3P is the policy liaison; HQ AETC/A3T (TPM) is the production issues liaison to Air Staff, AFPC, MAJCOMs, AU/A4L, AFOMS, and other agencies.

12.20.2. The TRG or designated level has the following responsibilities:

12.20.2.1. Program, schedule CDC and SC preparation and revision.

12.20.2.2. Prepare, approve, and distribute course charts.

12.20.2.3. Prepare, review, and forward CDC and SC manuscripts, illustrations, and test item pool to AU/A4L.

12.20.2.4. Respond to AU/A4L recommended corrective actions to ensure manuscripts are instructionally adequate.

12.20.2.5. Manage CDC and SC writer preparation and maintenance resources. Provide SME and other support for SKT projects, as tasked in the USAF training planning document.

12.20.2.6. Review these publications annually for essentiality, currency, technical accuracy, and adequacy. Record results on AETC Form 107.

12.20.2.7. Appoint an alternate manager.

12.20.2.7.1. When a CDC writer is not assigned or is on an extended TDY or leave, scheduled to PCS, or retiring, appoint an alternate manager and promptly provide POC information to AU/A4L. 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. Indicate whether POC is the primary or the alternate, and provide guidance on the previous writer's status (retired, PCS, TDY, etc.). 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).

Chapter 13

LOW FLOW COURSE REVIEW

13.1. Purpose. Verifies whether or not courses with fewer than 26 students the previous year (3 or fewer classes for Types 4 and 7 courses) are cost-effective and justified. Consider mother/piggyback courses together.

13.2. Procedures:

13.2.1. Annually review all low flow courses. Review may be concurrent with the ARTT. Include course purpose, current FY actual scheduled entries, next FY scheduled entries, committed resources, skill criticality, and alternate training availability and recommendations. For courses in validation on the STS or CTS anniversary date, conduct the review and document it as part of the validation process.

13.2.2. Consider DL as an alternative to low flow resident courses. Coordinate recommendation with AFCFM.

13.3. Responsibilities. The TRG or designated level establishes an annual low flow course review program, coordinates recommendations with AFCFM, and information-copies 2 AF/TTOC (HQ AETC/SGNU for medical courses) and HQ AETC/A3T. When applicable AFSAT reviews low flow courses.

Chapter 14

SERVICE TESTING

14.1. Purpose. Stimulate training effectiveness innovations and increase responsiveness to training customers; options include changing instructional methods or media, testing methods, or instruction sequences, or implementing temporarily training changes dictated by time constraints and customer needs.

14.2. Procedures:

14.2.1. Identify anticipated benefit to the Air Force, and establish specific start and end dates.

14.2.2. Document in a TRS approved plan coordinated by AETC TPM.

14.2.3. If service test deviates from approved TS, secure TPM and AFCFM approval.

14.2.4. 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. Except for EIS/OIS courses, when a service test results in a Major change (20 percent or more) obtain a new PDS code.

14.2.5. Use validation procedures to collect and report findings (see Chapter 10).

14.2.6. For courses attended by enlisted members, email revised and modified course control documents (POIs and CCs) for CCAF review to **ccaf.dfca@maxwell.af.mil.** Send hard copies only when requested or if documents are classified. **Note:** Send classified POIs and CCs together to AU/SSO, Attention: CCAF, 401 Chennault Circle, Maxwell AFB AL 36112-6428.

14.2.7. Report service test-driven training deficiencies (see Chapter 11).

14.2.8. Upon completion of the test, objectively evaluate findings and use validation report procedures to report results (see Chapter 10).

14.3. Responsibilities. The TRG or designated level develops course service test programs.

Chapter 15

ANNUAL REVIEW OF TECHNICAL TRAINING

15.1. Purpose. To conduct a thorough, periodic look at the continuum of training within various AFSC courses. The annual review of technical training (ARTT) is designed to generate an in depth look at various skill level officer and enlisted courses to ensure they include only relevant skills and knowledge, do not unnecessarily duplicate training, and satisfy customer requirements. It consolidates annual TS, test, student training materials and low-flow course review requirements. It must incorporate team members knowledgeable in training processes and procedures. Team members may include instructor supervisors, course supervisors, TDE specialists, instructional technology unit specialists, TMs, training evaluators, training resource specialists, flight chiefs, and TRS commanders. A team does not need each of those members, but a typical team will include those experience types. BMT conducts a triennial review, following the same rules on a 3-year cycle.

15.2. Procedures:

15.2.1. Conduct annual review of all AETC courses that support an AFSC. Review Type 4, Type 6, and faculty development courses every 2 years. If a course is within 6 months of deactivation, do not include it in the ARTT. Instead, include a memo for record in the record set identifying the course deactivation or replacement date. Do not include courses managed and conducted by other agencies, but review them to ensure AETC courses do not duplicate training.

15.2.2. Scrutinize the TS, CC, POI, LP, resident training materials, student measurement, FEQs, graduate assessment survey data, and course validation data (if available) to determine if courses meet customer requirements; whether training is unnecessarily duplicated; if course material depth and breadth expands from one skill level to the next, whether courses maintain a clear relationship with others in the same family group; and whether courses are still needed.

15.2.3. Use the CFETP anniversary month (initial skills course TS if CFETP does not exist) to determine the 12-month analysis period. Review all AFSC-pertinent courses that are active during the ARTT, except those identified in paragraph 15.2.1. If a course is slated for revision, place a memorandum for record indicating such , to include the projected revision date, in the course record set.

15.2.4. Send a copy of the annual training standard review to AFOMS/TE.

15.3. Responsibilities. The TRG establishes the ARTT program schedule. The TRG will either create a separate guide, or include the process in a supplement to this instruction. In either case, forward procedures at least 60 days prior to use to HQ AETC/A3PV for review and approval. The TRS/CC ensures the ARTT is accomplished, and initiates appropriate action, including reviewing and purging the system of no longer required tentative course shells (not activated, discontinued, cancelled). The TRS/CC completes initiated actions with the AFCFM, HQ AETC/A3T, and 2 AF/TTOC as required by this and other applicable AETC instructions.

15.4. Documentation. Document ARTT results and forward to HQ AETC/A3T. Include information pertaining to areas indicated in paragraph 15.2.2 and resulting actions. If training duplication exists, include rationale or corrective actions taken to eliminate duplication.

15.5. Prescribed Forms.

AETC Form 1, *Course Cancellation/Discontinuation Request*

AETC Form 23, *STS Proficiency Code Key (Final)*

AETC Form 60, *CTS Proficiency Code Key*

AETC Form 98, *Student Progress Checklist*

AETC Form 107, *Annual or Special Review Record*

AETC Form 120, *Training Equipment List*

AETC Form 133, *Plan of Instruction/Lesson Plan – Part I*

AETC Form 150, *Field Evaluation and Examination Answer Sheet*

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*

AETC Form 1200, *OMR Classroom Answer Sheet*

15.6. Adopted Forms.

AF Form 74, *Communication Status Notice/Request*

AF Form 332, *Base Civil Engineer Work Order*

AF IMT 601, *Equipment Action Request*

AF Form 813, *Request for Environmental Impact Analysis*

AF Form 847, *Recommendation for Change of Publication*

AF IMT 898, *Field Training Requirements Scheduling Document*

AF Form 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*

Lackland AFB Form 133, *Trainee Comment Sheet*

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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Abbreviations and Acronyms

ADL—Advanced Distance Learning

AETC—Air Education and Training Command

AFCFM—Air Force career field manager

AFMC—Air Force Materiel Command

AFMS—Air Force Manpower Standard

AFOMS—Air Force Occupational Measurement Squadron

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

ARTT—annual review of technical training

BA—basic authorization

BMT—basic military training

BOS—base operating support

C/L—classroom/laboratory

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

CRE—course resource estimate

CSIL—customer service information line

CTP—course training plan

CTS—course training standard

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

FEQS—field evaluation questionnaire summary

FOA—field operating agency

FTD—field training detachment

FTT—field training team

FY—fiscal year

FYDP—future years defense plan

GSA—General Services Administration

IMI—interactive multimedia instruction

ISD—instructional systems development

ITRO—interservice training review organization

IT—interactive television

LP—lesson plan

MAJCOM—major command

MIR—multiple instructor requirement

MO—manpower office

MOA—memorandum for agreement

MOU—memorandum of understanding

MRA—mission ready Airman

MTT—mobile training team

NPS—nonprior service

O&M—operations and maintenance

OI—operating instruction

OJT—on-the-job training

OPR—office of primary responsibility

OSR—occupational survey report

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

SC—specialized course

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 recoverables authorized to maintenance

STR—student training requirement

STS—specialty training standard

TDE—training development element

TDY—temporary duty

TM—training manager

TO—technical order

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 minor changes to an approved course; used when course parameters change less than 20 percent, the change does not require a new course number and PDS code, and additional resources are not required. An ATP supplements the most current certified course CTP.

Agenda/Outline/Syllabus-driven Courses—Agenda-driven seminars or symposia designed to quickly react to field changes; 50 percent or more of courses subjects/topics change from class to class.

Appraisals—Optional application method: requires no control measures; comprised of 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.

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 Objective—Specification of behavior the student must exhibit, the conditions under which the behavior is accomplished, and the minimum standard of acceptable performance.

Behavioral Statement—Statement of the behavior the student must exhibit. If a condition or standard is needed to clarity 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—Air Force career field life-cycle management tool that identifies career path education and training requirements and core tasks for each skill level or duty position of every AFS.

Classroom/Laboratory—Time spent in a classroom/laboratory environment dedicated to student course objective achievement. Instructional methodology may vary, but a qualified instructor must be present during this time.

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 which to guide action a specific way.

Course Chart—Document that outlines course general 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 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. 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. HQ AETC/A1MRT processes a CRE as a draft annex. Resource requirements are refined as the CTP is finalized. The TM completes the CRE Part I, and HQ AETC/A3RB completes Part II.

Course Training Plan—Course training plan is the foundation to plan, program, and implement training addressing facilities, equipment, manpower, etc. The plan is based on implementation year training requirements. The CTP includes the proposed course content outline and identifies required resources. It is a refined and accurate statement of resources required to support a course.

Differentiation Index (DI)—The DI measures the ability of an item to differentiate between students with high scores on the total test and those with low scores.

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 DL (ADL).

Ease Index (EI)—Represents the difficulty of the test item. An effective test should include test items representing a range of difficulty, but most items should be of average difficulty (EI of 50/60 percent). In criterion referenced instruction, an Ease Index below 80 percent may be unacceptable.

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 PAS. Instructors are cross-utilized.

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 training job tasks 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—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 completing training on schedule. This design is normally used when course-operating constraints dictate adherence to planned instructional times.

Group-Paced—Students progress through the course as a group, at the same rate. Hours listed in the course chart, established during course validation, are averages that the typical group is expected to need.

Hazing—Any conduct whereby a military member or members, regardless of service or rank, without proper authority causes another military member or members, regardless of service or rank, to suffer or be exposed to any activity which is cruel, abusive, humiliating, oppressive, demeaning or harmful.

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 training course development approach based on training needs.

Instructional Methods—Methods include lecture, demonstration, self study, computer-based training, and OJT.

Knowledge Objective—Objective written to satisfy training standard subject or task knowledge requirements. Stated conditions and standards are not necessary for knowledge objectives because they may be implied and measured by a written test.

Lesson Plan—Document used during a unit of instruction to guide teaching-learning activities. Part I includes the appropriate POI pages or the objectives listed on AETC Form 133. Part II is the teaching guide.

Major Course Change—Change that affects course content and/or course length by 20 percent or more. Either change will require a new course number and PDS code. **Examples:** 20 percent longer or shorter course length; 20 percent more or fewer training standard line items or course objectives; a series of minor changes since the PDS code was issued that constitute 20 percent or more change to course content and/or length. **Note;** initial skills courses require a new PDS code only when the AFSC portion of the course number changes.

Maltraining—Any practice not designed to meet a course training objective. Examples of maltraining include but are not limited to using abusive, excessive physical exercise or unnecessarily rearranging the property of an Airman to correct infractions. Any practice for the purpose of inducing an Airman to self-eliminate is considered maltraining.

Maltreatment (Physical)—Conduct that includes but is not limited to poking, hitting, bumping, pushing, grabbing, threats of violence, physical violence, physical intimidation, hazing or any unnecessary physical contact.

Maltreatment (Verbal)—Any language that degrades, belittles, demeans, or slanders an individual or group based on color, national origin, race, religion, age, ethnic group, gender, or physical stature. Includes but is not limited to (1) the use of profanity and any insinuation of immoral, unethical, illegal, or unprofessional conduct; (2) crude, offensive language in rhymes or prose as memory devices (mnemonics); and/or (3) training tools that contain profane words, offensive language, or inappropriate sexual or gender references. Any language that establishes a hostile environment, promotes sexual harassment, or disrespect to men and/or women constitutes maltreatment.

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 or set of LPs used to control and standardize instruction. The master LP is not personalized, but includes enough detail for beginning instructor use. It is the standard against which instructor supervisors check all other LPs. 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. However, the programmed group size does. For courses that subdivide groups or use a team concept, the multiple instructor requirement must be identified in the manpower annex.

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 used to determine student course objective achievement, which includes appraisals, progress checks, performance tests, performance rechecks, and written tests.

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.

Minor Course Change—Change that does not significantly affect course content and/or course length by 20 percent or more. It does not require a new course number or PDS code.

Mission Ready Airman (MRA)—Task-certified, performance-certified technical training graduate who is ready to perform his or her 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 or 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 teach a unit of instruction to one group at a specific time during the course; MIR is based on equipment, safety, supervision, and related factors.

Nonstandard Training Day—Training day that is more or less than 8 hours **Note:** The manpower resource is affected by any manpower equation revision, whether or not it affects the manpower authorizations.

Orientation or Familiarization Course—Course that provides introductory information on methods, procedures, equipment, systems, environment, or job requirements.

Outprocessing Appointments (Other Training/Administrative Time)—Time dedicated to end-of-course appointments.

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 by each instructor for individual use.

Piggyback Course—Course consisting of all or a portion of another course, using the same resources. Students who attend piggyback courses normally attend one or more basic course blocks of instruction.

Plan of Instruction—Course control document used to plan, organize, operate, and validate a course .

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. For new courses that lack attrition or washback data, the group size reduction rate will be determined from family-related courses. After a year, the course will be reviewed and the group size reduction will be based on actual washback and elimination rate experience. The program group

size may be exceeded (to maximum group size) to reduce student inprocessing and awaiting training numbers.

Programmed Text—Instructional materials in programmed instruction format.

Progress Check—Instructor administered formal written assessment; assesses student knowledge or performance objective accomplishment during classroom or laboratory instruction time. This check provides immediate student and instructor feedback.

Record Set—Electronic or paper file copy of course materials, including changes and/or revisions. (Where TTMS is installed, course design and development database-generated documents and forms may be designated as the record set.) It includes the CTP, LPs, TS, CC, POI, measurement plan, copyright release if applicable, and a distribution list if required. Type 4 course requirements are determined by the 982 TRG curriculum management OI.

Refresher Course—Course that reviews previous training.

Self-Paced—Individuals move through the course at varying rates according to parameters established during validation and documented in the CC (similar to group-paced, except students move through the course individually and are not dependent on group times). The CC lists average hours typical students are expected to need.

Seminar—An advanced course of study for discussion and research under the guidance of a recognized expert.

Special Individualized Assistance—Remedial instruction supervised by a qualified instructor for students who have difficulty attaining required achievement levels. SIA is mandatory for military students during probationary continuation, and optional during washback or repeat. It is strongly recommended when appraisals or progress checks indicate lack of achievement, and after a test failure. See AETCI 36-2215 for SIA guidance.

Standard Training Day—The standard training day is 8 hours of classroom and/or lab time divided into 50-minute instruction periods and 10-minute breaks. It is acceptable to continue training beyond 50 minutes and accumulate break time if doing so enhances the learning activity. The compressed work schedule used at Keesler AFB is an 8-hour training day of 445 instruction minutes and 35 break minutes. At least 4,000 instruction minutes must be provided during a 9-day training period.

Standardized AETC Training Literature—Resident training literature for courses taught at more than one location.

Standards—Specifics 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 instruction LP used at a station, classroom, laboratory, position, etc. It is not personalized and is used by all instructors assigned to the station.

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—To calculate, multiply student entries by course length (in days) and divide by 246 (training days per year). For ITRO course SMY, divide by 250.

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, nonprior 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 and Workbook—An SG includes task and subject information that support unit of instruction objectives, and may include review questions. A WB provides practical work, procedure application, and problem-solving exercises. The SG and WB may be published separately or as one publication called a study guide/workbook.

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.

Symposium—Course that addresses one or more topics, in which guest lecturers provide most content. Class participants may also provide content.

Teaching Steps—Main points that support lesson objectives.

Test Data—Written test administrations results summaries, documented in the computer test analysis report or on AETC Form 668.

Test Item Pool—Written measurement items that can be used to construct or revise a test. Items may be handwritten or maintained electronically. Items may also be garnered from previous test version, or a test with annotated proposed changes (working copy). Test item pools are optional.

Test Review—Test validation component used to solicit measurement instrument feedback. Results are summarized and examined 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 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.

Trained Personnel Requirements—Total initial skills course Air Force production requirements for nonprior service, retrainees, or a combination of both. TPRs do not include ANG, AFRC, or other services.

Training Pipeline Manager—Personnel assigned to HQ AETC/A3T who are responsible for initial skills formal course (pipeline) cradle to grave management, and for MAJCOM staff level

training management. TPMs ensure training programs support Air Force specialty requirements and CTPs and new course developments comply with Air Force policy; partner with the AFCFM throughout a U&TW, and chair the U&TW training and training resourcing section.

Training Resource—Facilities, equipment, funding, supplies, training spares, supply spares, and manpower (as affected by STR, student authorization, group size, course length, and MIR) required to develop and conduct approved training.

Unit or Module 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.

Wartime Training Day—Computed to produce the greatest number of graduates in the least amount of time. **Example:** Two 10-hour shifts, three 8-hour shifts, or four 6-hour shifts.

Wartime Training Week—Six days with no holidays.

Written Test—Instrument used to sample each knowledge objective and, when necessary, performance objective knowledge components. Tests can be unit, module, block, or end-of-course tests administered in a formal testing mode during time allotted in the POI.

Attachment 2

SAMPLE COURSE RESOURCE ESTIMATE

TO: HQ AETC/A3T/A1MRT/ A3RB / (HQ AETC/SGNU for medical courses)

FROM: (Appropriate TRG)

SUBJECT: Course Resource Estimate for (Course Number and Title)

1. 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 users 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 users 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

COURSE TRAINING PLAN DEVELOPMENT AND APPROVAL, FLOW CHART DECISION LOGIC NARRATIVE

Note: This narrative supports the CTP processing, approval, and certification flow chart (Figure A3.1).

A3.1. CTP Submission Timelines. CTP processing, approval and certification should take no more than 90 calendar days: 30 days for local processing and approval; 30 day for HQ AETC validation and certification; and 30 days for OTA required course schedule conversion.

A3.2. Step 1. Develop a CTP when developing a new course, existing course changes impact resource requirements or manpower authorizations, or when a course transfers from one base to another. If parameters remain the same, the gaining TM makes TPS changes, the losing TM discontinues the old course, and the gaining TM loads the new parameters. **Note:** Use an abbreviated plan for existing course changes that are less than 20 percent, or changes that do not affect resources. Any change that affects resource requirements requires a complete CTP.

A3.3. Step 2. The TM enters new or changed course parameters and information in TPS (requesting a new course number and PDS code if necessary) and prepares CTP annexes (including the course control documents, manpower and personnel, facilities, logistics, comptroller, environmental assessment, ITRO, and security annexes, and others as required). The TM immediately, simultaneously starts and completes applicable annexes once course changes are known, (i.e., a U&TW tasking, training planning team -driven changes, or field feedback result-driven changes).

A3.4. Step 3. The TM assembles the CTP (including planned implementation date), coordinates with all base agencies according to local established guidelines, and forwards to the TRG resources chief. **Note:** TMs should follow up with applicable agencies as necessary to encourage timely response and to meet established CTP processing timelines.

A3.5. Step 4. The TRG resources chief validates resource availability, coordinates CTP with the TRG training administrator/director who submits the CTP to the TRG commander for approval.

A3.6. Step 5. The TM emails the approved CTP to the TRW/MO for review. The TRW/MO compares course parameter information in TPS with the CTP. If CTP cannot be emailed, the TM hand carries three hard copies to TRW/MO.

A3.7. Step 6. The TRW/MO maintains a copy of the CTP, and emails it to HQ AETC/A1MRT (HQ AETC/SGNU for medical courses), HQ AETC/A3T TPM, and 2 AF/TTOC.

A3.8. Step 7. HQ AETC/A1MRT validates additional manpower and SMY resource needs, forwards a recommendation to HQ AETC/A3RB (HQ AETC/SGNU for medical courses), and courtesy copies HQ AETC/A3T TPM.

A3.9. Step 8. HQ AETC/A3RB reviews and validates the resource impact (O&M start up costs, substantial recurring costs, etc.) for nonmedical courses, and sends a recommendation for certification to HQ AETC/A3T TPM. For medical courses, HQ AETC/SGNU reviews the CTP provided by the TRW/MO, and validates the resource impact and sends the approved CTP to HQ AETC/A3T TPM.

A3.10. Step 9. The HQ AETC/A3T TPM generates and forwards the certification memo (see Figures A3.2 and A3.3), with the approved CTP, for HQ 2 AF/TTOC review (including the planned implementation date and impact to the accessions plan for enlisted initial skills courses), and to AFPC for new courses and AM10 officer initial skills courses.

A3.11. Step 10. If the accessions plan is affected, HQ 2 AF/TTOC reviews the CTP to identify the impact, coordinates any actions to the plan, and sends the CTP to HQ AETC/A3T for certification. If the accessions plan is unaffected, HQ 2 AF/TTOC will identify the earliest implementation date in the certification memo and send the CTP to HQ AETC/A3T for certification.

A3.12. Step 11. HQ AETC/A3T certifies the CTP and sends the certification memo to the TRW/MO, HQ AETC/A3T TPM (SGNU for medical courses), A1MRT, A3RB, A3I (if interservice course), 2 AF/TTOC, TRG and TRS commanders, and the TRG TM. The TM prepares AETC Form 179A and forwards it to 2 AF/TTOC. **Note:** Courses containing motivational training must be certified by HQ AETC/A2/3/10.

A3.13. Step 12. HQ AETC/A1MRT activates the course in TPS.

A3.14. Step 13. 2 AF/TTOC releases class schedules.

Figure A3.1. Training Plan Development and Approval Flow Chart.

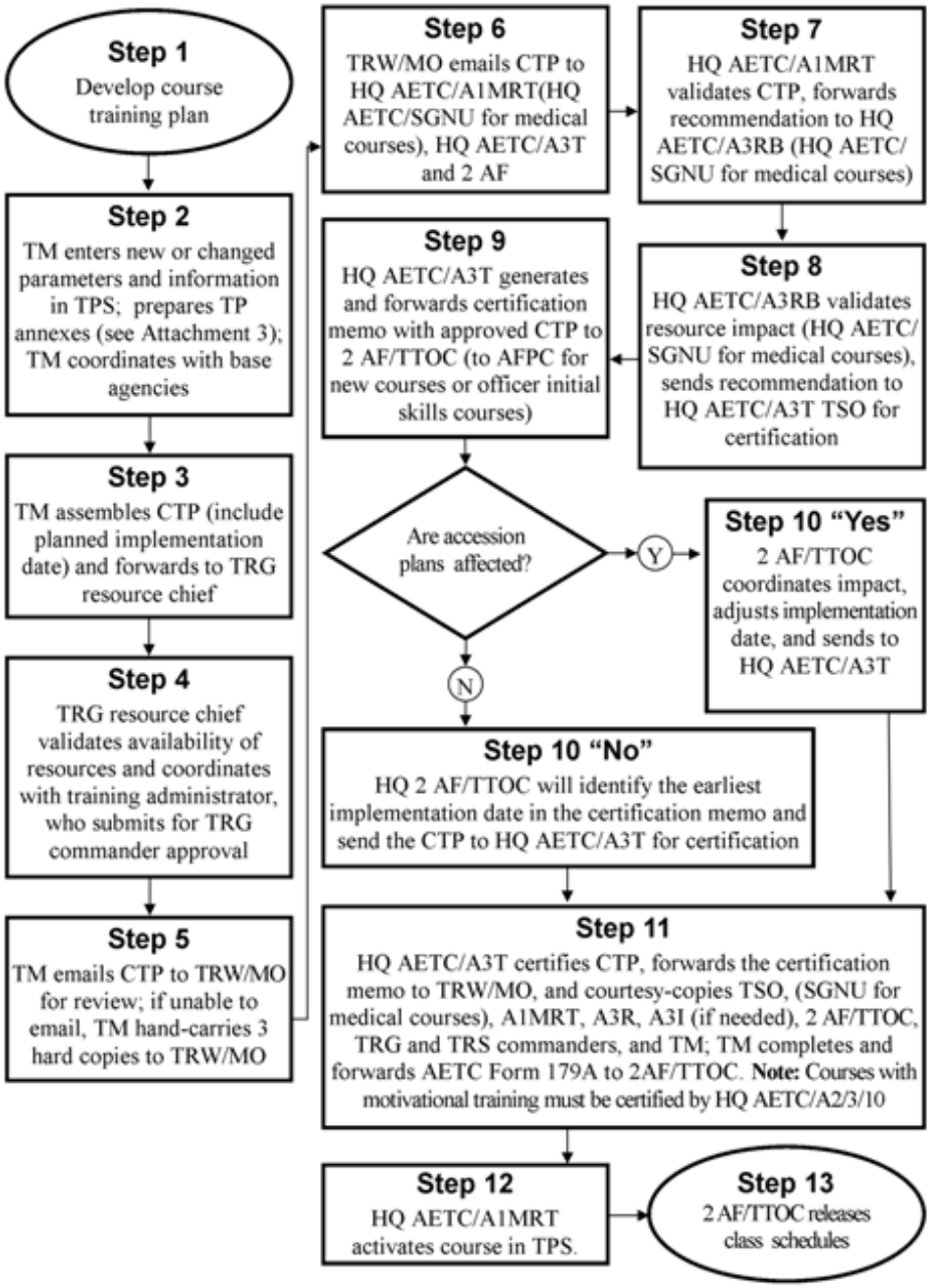


Figure A3.2. Training Plan Approval/Certification Memorandum, Nonmedical Course.

Date

MEMORANDUM FOR XXX TRG/CC

FROM: HQ AETC/A3T
1 F Street Suite 2
Randolph AFB TX 78150-4325

SUBJECT: Course Training Plan Certification

1. HQ AETC/A3T has validated the training plan for course XXXXXXXXX, 000, (Course Title). The training plan is certified. (**Reference:** Refer to A3RB and A1MRT coordination/comments, 2 AF coordination, impact to training resources, identify new course number, identify if change to course length.) Earliest implementation date is DD MMM YY. Request Training Manager forward AETC Form 179A to HQ 2 AF/TTOC to release class schedules following HQ AETC/A1MRT CTP activation.

2. POC is TPM Name, Office Symbol, DSN number.

Signature, Date
HQ AETC/A3T Signature Block

cc:
TPM/Office Symbol
HQ AETC/A1MRT/A3PZ/A3T
HQ AETC/A3I (if applicable)
2 AF/TTOC
XX TRW/MO (for Sheppard AFB, use 82 MSS/MOF)
XXX TRS/CC

FMAM

Figure A3.3. Training Plan Approval/Certification Memorandum, Medical Course.

(Date)

MEMORANDUM FOR XXX TRG/CC

FROM:HQ AETC/A3T
1 F Street Suite 2
Randolph AFB TX 78150-4325

SUBJECT: Course Training Plan Certification

1. HQ AETC/SGNU has validated the training plan for course XXXXXXXXX, 000, (Course Title). The training plan is certified. (**Reference:** Refer to SGNU and A1MRT coordination/comments, 2 AF coordination, impact to training resources, identify new course number, identify if change to course length.) Earliest implementation date is XX XXX XX.

Request Training Manager forward AETC Form 179A to HQ 2 AF/TTOC to release class schedules following HQ AETC/A1MRT CTP activation.

2. POC is TPM Name, Office Symbol, DSN number.

Signature, Date
HQ AETC/A3T Signature Block

cc:
TPM/Office Symbol
HQ AETC/SGNU/A1MRT/A3RB
HQ AETC/A3I (If applicable)
2 AF/TTOC
XXX TRS/CC
TRG/TM

Attachment 4

EQUIPMENT RESOURCES AVAILABILITY FLOW CHART, DECISION LOGIC NARRATIVE

Note: This narrative supports the equipment resources availability flow chart (Figure A4.1).

A4.1. Step 1. TM identifies equipment requirements on AETC Form 120.

A4.2. Step 2. TM forwards a copy of the AETC Form 120 to the equipment custodian.

A4.3. Decision Point. Is equipment available in the TRS? If equipment is available in the TRS, the TM completes the CTP logistics annex. If equipment is not available in the TRS, the TM contacts the TRSS POC to check on equipment availability in the TRW.

A4.4. Decision Point: Is equipment is available in the TRW? If yes, the TRSS POC instructs the TM to proceed with developing the equipment annex. If not, the TM contacts the TPM (HQ AETC/SGNU for 882 TRG) to check AETC equipment availability, and courtesy-copies the TRSS POC. HQ AETC/SGNU queries other MAJCOMs and AETC bases for medical course equipment requirements.

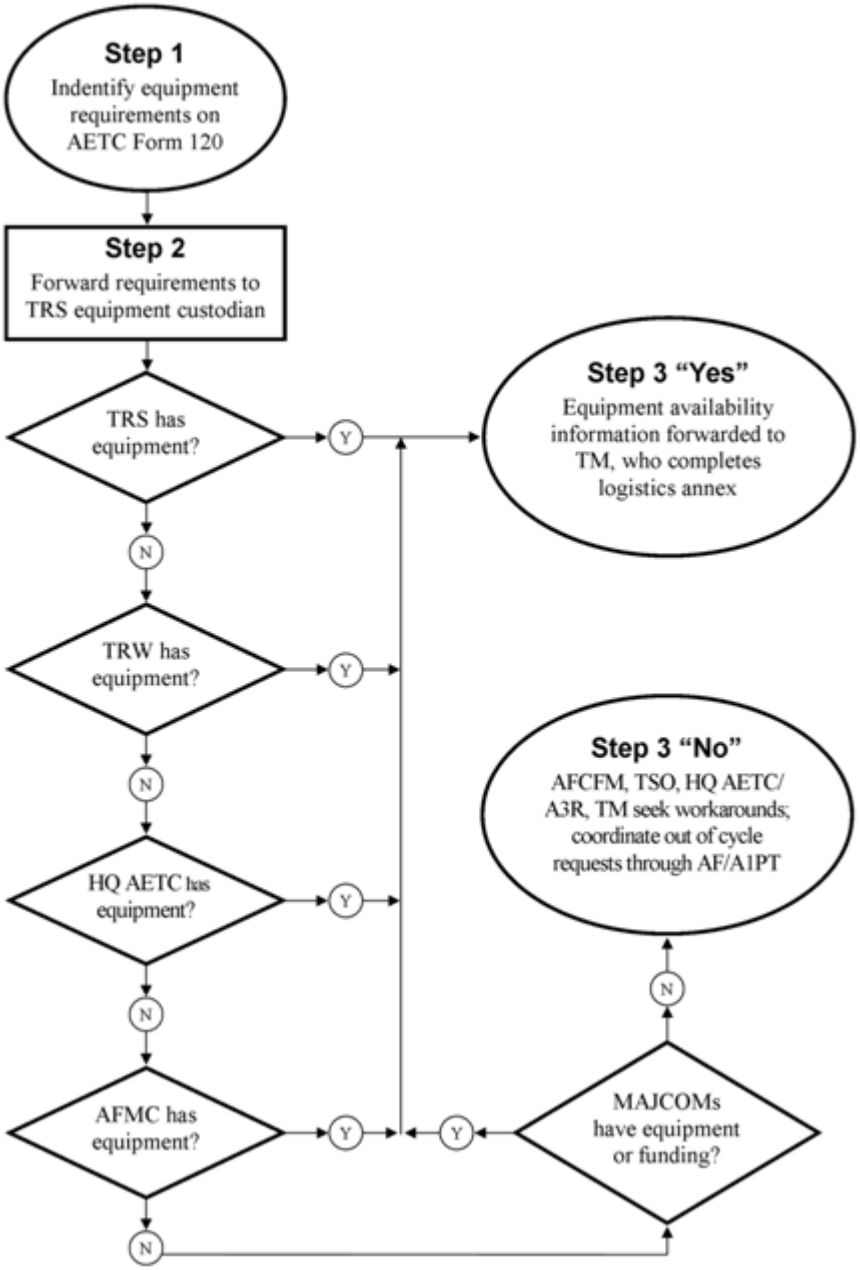
A4.5. Decision/Question: Is equipment available in AETC? If yes, TPC provides TM with supply information (courtesy-copies TRSS), and TM develops logistics annex. If no, TPM solicits HQ Air Force Materiel Command (AFMC) assistance.

A4.6. Decision/Question: Is equipment available in AFMC? If yes, TPM instructs TM to develop the logistics annex. If no, the TPM will contact the AFCFM for assistance. The AFCFM will query the major command (MAJCOM) functional managers for equipment and/or funding requirements.

A4.7. Decision/Question: Do other MAJCOMs have equipment or funding? If yes, AFCFM makes equipment/funds available, the TPM notifies the TM, and the TM develops the logistics annex. If no, the AFCFM, TPM, HQ AETC/A3R, and TM look for alternatives or workarounds. The AFCFM, 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 approved.

A4.8. Step 3. When equipment (or funding) becomes available, availability information is forwarded to the TM, who develops the logistics annex, based on requirements identified on AETC Form 120.

Figure A4.1. Equipment Resources Availability Flow Chart.



Attachment 5

MANPOWER RESOURCES DECISION LOGIC NARRATIVE

Note: Use this narrative to develop and process the CTP manpower annex. Before a course can be activated and conducted, HQ AETC/A1MRT must validate the manpower annex, and TPM (HQ AETC/SGNU for medical courses) must certify it. Manpower annexes either have no manpower impact, or require manpower that the wing has identified as an offset to pay for the added cost of a new or updated course. If there are no offsets in the wing, the TPM will prioritize the course among all others that require resources. Once resources are available, the TPM will certify the training plan and notify the TM, HQ AETC/A1MRT, 2 AF/TTOC, and TRW/MO.

A5.1. TM Requests Annex. TM forwards a manpower annex request to the TRW/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. **Note:** HQ AETC/A1MRT requires 30 days each to process a manpower annex and a CTP.

A5.2. TRW/MO Develops Annex. The TRW/MO develops the manpower annex using data from the TM and appropriate databases, and validates the manpower-related data.

A5.3. TRW Forwards Annex. TRW/MO sends the manpower annex to the TM.

A5.4. TM Forwards Annex. The TM forwards the request to HQ AETC/TPM (SGNU for medical).

A5.4.1. If manpower is not affected (i.e., no additional instructor authorizations or SMYs are required to certify the course), the TM completes the CTP (see Attachment 3).

A5.4.2. If manpower is affected and the TM can identify offsets from within the TRS, the TM identifies the offset to TRW/MO, who annotates the offset in the manpower annex.

A5.4.3. If offsets are not available in the TRS, see paragraph A5.8.

A5.5. TRW/MO Finalizes Annex. The TRW/MO finalizes the annex, attaches a cover memorandum summarizing the resource impact, and forwards the draft annex to HQ AETC/A1MRT and the TPM.

A5.6. HQ AETC/A1MRT Validates Draft. HQ AETC/A1MRT validates the draft manpower annex and notifies the TPM and HQ AETC/A3R. When offsets from an existing course will pay for a new course, the TPM – with HQ AETC/A3R input – approves offset use and notifies HQ AETC/A1MRT, the TRW/MO, and the TM.

A5.7. TM Includes Memo. The TM includes the approval memo in the CTP manpower annex.

A5.8. TM Seeks Offsets from TRSS. If manpower offsets are not available in the TRS, the TM contacts the TRSS for availability within the TRG or TRW. If manpower offsets are available, the TRSS notifies the TM, who proceeds according to paragraph A5.4.

A5.9. TM Seeks Manpower from HQ AETC. If offsets are not available in the TRG or TRW, TM forwards the manpower annex to the TRW/MO to request HQ AETC fill additional manpower resources. TRW/MO proceeds with the annex, identifying the manpower shortages.

A5.10. TRW/MO Forwards Annex with Shortages, Impact Summary. The TRW/MO forwards the manpower annex with the shortages and resource impact summary memo to HQ AETC/A1MRT and the TPM (HQ AETC/SGNU for medical courses).

A5.10.1. HQ AETC/A1MRT validates the manpower shortages and notifies the TPM (HQ AETC/SGNU for medical courses).

A5.10.2. If resources are available, the TPM - with HQ AETC/A3R input - validates the annex and notifies HQ AETC/A1MRT, TRW/MO, and the TM.

A5.11. TPM Prioritizes Course. If resources are not available, the TPM prioritizes the course in "awaiting manpower" status, and notifies HQ AETC/A1MRT, TRW/MO, and the TM.

A5.11.1. When resources become available, the TPM validates the annex and notifies HQ AETC/A1MRT, TRW/MO, and the TM. The TM then completes the CTP.

A5.11.2. HQ AETC/A3T maintains and updates the list of courses awaiting manpower resources and notifies HQ AETC/A1MRT when updating resource status.

A5.11.3. For medical courses, if offsets are not identified by HQ AETC/A3T or HQ AETC/SGNU, then HQ AETC/SGNU coordinates requirements with HQ USAF/SG. If offsets are acquired, HQ AETC/SGNU notifies HQ AETC/A1MRT, TRW/MO, and the TM. The losing command transfers the authorizations and HQ AETC/SGNU approves the manpower annex. If offsets are unavailable, HQ AETC/SGNU notifies HQ AETC/A1MRT, TRW/MO, and the TM.

A5.12. TPM Requests Manpower From Commands. When resources are unavailable, the TPM contacts the AFCFM to request manpower from using commands.

A5.13. Losing Commands Transfer Authorizations. 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. When notified by HQ AETC/A1MRT that authorizations have been transferred, the TPM validates the manpower annex and notifies HQ AETC/A1MRT, 2 AF, TRW/MO, and the TM. The TM completes the CTP. **Note:** HQ AETC/A1MRT returns excess manpower resources to the functional community that initially furnished them if manpower becomes excess after the course validation phase. Courses under validation will be priced after the validation phase, at which time a final standard is submitted. The TM and MO ensure the CTP manpower annex states that the course is under validation and the standard is interim. Supplemental or advanced course manpower goes back to the functional community that originally provided it if the course was established with a known term and discontinue date.

A5.14. TM Coordinates Workarounds. If manpower is unavailable, the TM coordinates with the TPM and AFCFM to identify workarounds to satisfy the training requirement until resources are available.

Attachment 6

AETC FORM 120 COMPLETION INSTRUCTIONS

A6.1. AETC Form 120. The AETC TM coordinates all AETC Form 120 generation or update processes. The designated TM approves each course AETC Form 120 depending on CTP, curriculum, or logistics applications. The TM uses the TTMS course design and development database equipment list where TTMS is installed See Figure A6.1 for a sample AETC Form 120.

A6.1.1. Equipment custodians give the TM course correlated supply equipment account inventory (R-14 listing) copies. The TM, with the course TDE, determines whether to generate a new Form 120 in TTMS or externally. The TM delivers copies of new or updated course Forms 120 to equipment custodian(s).

A6.1.2. Enter start date and form preparation date as follows: year in four digits, month and day in two digits each. (**Example:** 14 December 2008 is 20081214 and 7 January 2009 is written 20090107.) Enter stock numbers in ascending order. Forward a copy of the form and a cover memo signed by the squadron commander or flight chief to the equipment custodian. After TM coordination/approval, if there are changes, additions or deletions, equipment custodians provide base supply with a new copy of the form and cover memo.

A6.2. Equipment List Headings. List equipment in four parts under the following headings:

A6.2.1. **Part I—Investment Items (Base Funded).** This part includes Air Force decentrally managed investment type equipment items (ERRC codes "NF") and a unit cost of $250,000 or more. Items are procured or requisitioned at base level from commercial venA3Rs, the Defense Logistics Agency (DLA), or 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." **Note:** For list of supply and equipment codes, see AFMAN 23-110, *USAF Supply Manual*.

A6.2.2. **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 DLA, GSA, Army, Navy, Depot Maintenance Service, Air Force Industrial Fund, local purchase, commercial venA3Rs, 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.

A6.2.3. **Part III—AFMC Financed Items.** This part includes items procured and funded by AFMC.

A6.2.4. **Part IV—Financing Unknown.** This part includes items for which funding responsibility cannot be ascertained. Include SPRAM training spares XD/XF-coded repair assets in this part.

A6.2.4.1. **Stock Number.** 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).

A6.2.4.2. **Nomenclature.** Use abbreviated nomenclature if the item has a valid stock number. Otherwise, describe the item in sufficient detail to identify it.

A6.2.4.3. **Allowance Source Code (ASC).** Enter "N/A" – 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.

A6.2.4.4. **Quantity-Maintenance.** Enter the quantity maintenance requires to support the course.

A6.2.4.5. **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 those authorized on administrative and support EAIDs. Enter the quantity required for the course.

A6.2.4.6. **Quantity—Training.** Training items are those that are necessary to meet training objectives; usually those 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 Form 601, *Equipment Action Request,* AF Form 2005, *Issue/Turn in Request,* or by memorandum.

A6.2.4.7. **Quantity—Short.** The quantity short is the quantity that cannot be supplied from base assets. Enter the base supply requisition number in the remarks column.

A6.2.4.8. **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. Unit cost entries are not required for AFMC financed items.

A6.2.4.9. **Cost—Quantity Short.** Compute this entry by multiplying "quantity short" by the "unit cost." Total the quantity short cost for Part I and Part II items.

Note: Medical course equipment is not base or AFMC funded. Add **Part V—Other Known Financing,** and list known funding sources that adhere to paragraphs A6.2.4.1 through A6.2.4.9. Also address any equipment owned by others and used through a memorandum of understanding.

Figure A6.1. Sample Form 120, Training Equipment List.

COURSE NUMBER	COURSE TITLE	QUANTITY				TRAINING EQUIPMENT LIST	
XXXXXXXXXX XXXXX	Xxxxxxxx Xxxxxxxx Xxxxxxx Apprentice						
START DATE 20091029						LOCATION Sheppard AFB	DATE 20090815

ITEM NO	STOCK NUMBER	NOMENCLATURE	ASC	MAINT	SUPPORT	TRAINING	SHORT	COST UNIT	COST QTY SHORT	REMARKS
		PART I - INVESTMENT ITEMS								Cross utilized with courses
		(BASE FUNDED-NONE)								(*) J3ACRXXXXX 001 Acc 430FL
										(**) J3ACRXXXXX 005 Acc 433LX
										(***) J3AZRXXXXX 006 Acc 431CR
		PART II - EXPENSED ITEMS								(****) J3ABRXXXXX 001 Acc 432FP
		(BASE FUNDED)								
1	1560-01-025-5045	Aircraft Parts Kit	XB3			12		$243.00		
2	4430-00-087-6776	Oven Laboratory	460			0		$2,285.70		
3	4430-01-231-6460	Oven Gravity	NA			2		$367.20	$375.00	
4	6630-00-254-0987	Martin Flash Tester	460		1	3		$823.55		
5	6640-00-826-8649	Table Balance	460			3		$375.00		
6	6670-00-283-2415	Mettler Analytical Bal (AE240)	460			2	1	$489.00	$489.00	
		PART III - AFMC FINANCED ITEMS								
7	3655-00-995-8575	400 Gallon Cryotainer	488			4		$14,025.00		(**) 1ea Replacement Req [See Pg 18 (4)]
8	3655-01-059-8222	Cryogenic Sampler Cylinder	460			4	2	$593.30	$1,186.60	(***) E###XX31360012
9	6115-01-389-4093	Floodlight, FL-1D	316			0		$12,000.00		(*****) 2ea
10	6630-01-165-7133	B-2 Refractometer Test Kit	460			3		$610.17		
		PART IV – FINANCING UNKNOWN								
11	1670-00-820-4896	Pallet, Cargo ACFT HCU-6/E	010			21	3	$806.00	$2,418.00	Sub: 1670-01-345-2005 E####XX42290024
12	7010-01-232-9363	Advanced Computer System	009			12		$1,877.56		(****) ADPE Acct 023 [See Pg 18 (6)]
13	7025-01-240-4345	Laser Printer	009				1	$751.51		(****) ADPE Acct 023
14	C-130	C-130 Aircraft	NA			2		$7,000,000.00		(*) Serial # 79-0576 & #83-1143
15	(Typical Brand Name)	Student Computer	NA			12		$1,100.00		(*) (***) ADPE Acct 023
16	(Typical Brand Name)	Video Projector	NA				1	$6,000.00		(*) (***) ADPE Acct 023
17	(Typical Brand Name)	Smart Board	NA				1	$2,000.00		(*) (***) ADPE Acct 023
18	Desktop	Instructor Computer	NA				1	$1,100.00		(*) (***) ADPE Acct 023
							TOTAL UNIT COST	$7,045,446.99		

AETC FORM 120, 20090812

Supersedes AETC Form 120, 20080201

Attachment 7

SAMPLE CFETP/STS STATUS REPORT

MEMORANDUM FOR HQ AETC/A3T
AFOMS/TE

FROM: (Training Group Mailing Address)

SUBJECT: 2AXXX CFETP/STS Review

1. A review of the 2AXXX CFETP has been conducted by 345 TRS. It is current for AETC courses: (List courses here)

2. Go to http://afpubs.hq.af.mil/ for a current copy of the 2AXXX CFETP.

3. If you have questions, please contact the Training Manager at DSN XXX-XXXX.

(AETC TM Signature)

Attachment 8

SAMPLE PROFICIENCY CODE CTS

DEPARTMENT OF THE AIR FORCE CTS
XXXXXXXXXX
XXX

XXth Training Group (AETC) (PDS Code LVH)
XXXXXX Air Force Base TX 78236-5717 January 20XX

TEMPEST TESTING BASICS

1. Implement training in support of this CTS with the class beginning XXXXXX and graduating XXXXXX.

2. Purpose:

a. Establish training requirements using tasks, knowledge, and training proficiency levels for course XXXXXXXXXX XXX, *TEMPEST Testing Basics.*

b. Basis for the development of more detailed course training materials, training objectives, and training evaluation instruments.

3. Course Description. This course provides selected Department of Defense personnel with the basic knowledge and skills training needed to perform TEMPEST testing. Training includes the TEMPEST channel, instrumentation, TEMPEST documentation, TEMPEST test execution, post test, Crosstalk, and attenuation testing.

4. Qualitative Requirements. See Attachment 1 for task, knowledge, and proficiency levels referenced in paragraph 2. Prerequisites: Complete of the XXXXXXXXXX XXX, TEMPEST Fundamentals, or equivalent. Be assigned, or scheduled for, TEMPEST testing duties. Working knowledge of oscilloscope and frequency generators is mandatory. Have mandatory engineering AFSCs 62E32, 33S3A, electronic technician AFSCs 2EXXX, equivalent MOS, or DOD/Civilian specialty identifier. Have a working knowledge of algebra, logarithms, and scientific and engineering notation. Trainees without specified prerequisites cannot be expected to meet indicated proficiency levels that may be used as a basis to refuse admission and return students to home stations.

5. Recommendations. Send comments and recommendations regarding AETC training quality to 37 TRG/TTS, 1000 Mercury Drive, Lackland AFB TX 78236-5717. Reference this CTS in correspondence. A customer service 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 473-2917.

Signature Block Name, Grade, USAF
Commander

1 Atch
Qualitative Requirements

Supersedes CTS L3OZR4934-010, October 1996
Prepared by: 342 TRS/TTX

Approved by and date: 342 TRS/CC, XX January 20XX

CTS XXXXXXXXXX-XXX
QUALITATIVE REQUIREMENTS

Tasks, Knowledge, and Proficiency Level

1. TEMPEST CHANNEL
    - 1.1. Recognize Emanation Types B
    - 1.2. Test Messages B
2. INSTRUMENTATION
    - 2.1. Receivers
        - 2.1.1. Tunable/Nontunable B
        - 2.1.2. Basic Receiver Theory B
        - 2.1.3. Bandwidth Parameters B
        - 2.1.4. Operate Receivers 2b
    - 2.2. Spectrum Analyzers
        - 2.2.1. Limitations B
        - 2.2.2. Uses B
        - 2.2.3. Operate Spectrum Analyzers 2b
    - 2.3. Transducers Selection B
    - 2.4. Substitution Devices
        - 2.4.1. Function Generator B
        - 2.4.2. Sine Wave Generator B
        - 2.4.3. Impulse Generator B
        - 2.4.4. Operate Substitution Devices 2b
    - 2.5. Oscilloscopes
        - 2.5.1. Display TEMPEST Signals 2b
        - 2.5.2. Raster an Oscilloscope 2b
    - 2.6. Operate Recording Devices
        - 2.6.1. Photograph TEMPEST Signals 2b
        - 2.6.2. Record TEMPEST signals using a VCR 2b
        - 2.6.3. Record TEMPEST signals using a Digital Oscilloscope 2b
3. TEMPEST TEST DOCUMENTATION
    - 3.1. Plan Content B
    - 3.2. Report Content B
4. TEMPEST TEST EXECUTION
    - 4.1. Laboratory
        - 4.1.1. Perform 6db Bandwidth Measurement and Impulse Bandwidth Correction Factors 2b
        - 4.1.2. Perform Laboratory b

Setup	
4.1.3. Optimize Bandwidth	2b
4.1.4. Perform Search Procedures	2b
4.1.5. Identify CORRE	2b
4.1.6. Measure DSS	2b
4.1.7. Measure Ambient	2b
4.1.8. Measure Emanations	2b
4.1.9. Sync Signals	B
4.2. Field	
4.2.1. Field vs. Laboratory Testing	B
4.2.2. Optimize Signal to Noise	2b
4.2.3. Perform Walk away Tests	2b
4.2.4. Antenna Selection	B
4.2.5. Identify CORRE without a Monitor/Sync	2b
5. POST TEST	
5.1. Use of Conversion and Correction Factors to Determine Final Absolute Signal Levels	B
5.2. Data Limitation	
5.2.1. NSTISSAM TEMPEST/1-92 Emanations Limits	B
5.2.2. Equipment Zones	B
6. PERFORM CROSSTALK TESTS	
6.1. Perform Shielded Enclosure Test	2b
6.2. Perform Facility Zoning Test	2b
6.3. Reports	B

SUMMARY OF CHANGES

Changes course number from L3OZR4934-010 to XXXXXXXXXX XXX and restructures CTS line items and proficiency levels to better indicate required tasks and knowledge. Changes CTS line item 2.3. to read Transducer Selection, which combines line items 2.3.1. and 2.3.2.; deletes CTS line items 2.5.3. and 2.5.4. and moves them to line items 2.6.1. and 2.6.3; changed line item 5.1 to read Use of Conversion Correction Factors to Determine Final Absolute Signal Levels and line item 5.2.1. to read NSTISSAM TEMPEST Emanation Limits; and added a proficiency level of 2b to line item 6.

Attachment 9

SAMPLE BEHAVIORAL CTS

DEPARTMENT OF THE AIR FORCE
XXth Training Group (AETC)
XXXXX Air Force Base, Texas 78236-5717

CTS XXXXXXXXXX XXX
XXXXXXXXXX XXX
(PDS Code 7SE)
JANUARY 20XX

TEMPEST FUNDAMENTALS

1. Implement training in support of this CTS with the class beginning XXXXXX and graduating XXXXXX.

2. Purpose:

a. Establish training requirements using task or knowledge statements for courses XXXXXXXXXX XXX/ XXXXXXXXXX XXX, *TEMPEST Fundamentals*.

b. Basis for the development of more detailed course training materials, training objectives, and training evaluation instruments.

3. Course Description. This course provides U.S. government personnel and contractors with knowledge-level training required for national TEMPEST entry-level positions. Training covers the TEMPEST phenomenon, national TEMPEST program, TEMPEST tests, facility and equipment zoning tests, TEMPEST design concepts, TEMPEST countermeasure review, TEMPEST information security classification, and national TEMPEST publications.

4. Qualitative Requirements. See Attachment 1 for knowledge referenced in paragraph 2.

5. Recommendations. Send comments and recommendations regarding quality of AETC training. to 37 TRG/TTS, 1000 Mercury Drive, Lackland AFB TX 78236-5717. Reference this CTS in correspondence. A customer service 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 473-2917.

Signature Block Name, Grade, USAF
Commander

1 Atch
Qualitative Requirements

Supersedes CTS L3OZR4934-000, April 1991
Prepared by: 342 TRS/TTSCD
Approved by and date: 342 TRS/CC, 2 December 1998

XXXXXXXXXX XXX
QUALITATIVE REQUIREMENTS
KNOWLEDGE BEHAVIORAL STATEMENTS

1. TEMPEST PHENOMENON	
1.1. Explain terms pertinent to the TEMPEST phenomenon.	K
1.2. Identify items of equipment that could be sources of TEMPEST emanations.	K
1.3. Identify how specific TEMPEST emanations are propagated.	K
2. Describe the organizations responsible for TEMPEST at the national level.	K
3. Assign security classifications to examples of TEMPEST information.	P
4. Identify national TEMPEST publications applicable to various situations.	K
5. TEMPEST TESTS	
5.1. Explain terms pertinent to TEMPEST tests.	K
5.2. Identify valid uses for TEMPEST test data.	K
6. FACILITY AND EQUIPMENT ZONING	
6.1. Explain terms pertinent to facility and equipment zoning.	K
6.2. Identify valid uses for facility and equipment zoning test data.	K
7. TEMPEST DESIGN CONCEPTS	
7.1. Explain fundamental TEMPEST concepts pertinent to equipment design.	K
7.2. Explain fundamental TEMPEST concepts pertinent to system/facility design.	K

SUMMARY OF CHANGES

This revision changes the term “countermeasure assessment” to “countermeasure review,” changes the course number to reflect the new AFSC, and eliminates countermeasures required for a facility.

Attachment 10

SAMPLE AETC FORM 449, COURSE CHART

Figure A10.1. Sample Course Chart.

COURSE CHART

NUMBER	TITLE	PDS CODE
E3ATR2E020 00AA	Electronic Principles	XQR

SUPERSEDES COURSE CHART(S)	APPLICABLE TRAINING STANDARD	INSTRUCTIONAL DESIGN
E3ATR2E020 013, 28 Feb 2005	E3ATR2E020 013, 01 Oct 2004	Group Lock Step

LOCATION OF TRAINING	WING/GROUP/DEPARTMENT
Keesler AFB, MS	81 TRW/81 TRG/332 TRS/UNE

COURSE SECURITY CLASSIFICATION	OPR APPROVAL DATE	NUMBER OF ATTACHED TABLES
UNCLASSIFIED	332 TRS/TRR 20050413	1

COURSE LENGTH (43 Academic days) WARTIME COURSE LENGTH (_____ Academic days)

	HOURS
Technical Training	
Technical	330.00
Other Training/Administrative Time	
Processing	2.00
Tests	12.00
TOTAL	344

REMARKS

Effective Date: 20050601 with Class 20050606

Course Chart E3ATR2E020 013, 20050228, applies to classes prior to 06 Jun 05.

The peacetime and wartime courses are the same except for the hours per day and days per week. During wartime, this course will be conducted 10 hours a day, 6 days per week.

This course chart applies to: E3AQR2E020 00AA, E3AQR2E031 01WA, E3AQR2E131 01AA, E3AQR2E132 0A1A, E3AQR2E133 01BA, E3AQR2E134 01CA, E3AQR2E231 01ZA, E3AQR2E632 0E7A, E3AQR2E633 0E2A, E3AQR9S100 00AA

Training Manager: Boliver Cardnaple, 332 TRS/UNE, DSN XXX-XXXX

TABLE 1 - MAJOR ITEMS OF EQUIPMENT

Training Equipment: Analog Multimeter, Oscilloscope , NIDA Trainer , Digital Multimeter, Function Generator

AETC FORM 449, 20090812 Supersedes AETC Form 449, 20080201

COURSE CHART *(Continued)*

COURSE MATERIAL		HOURS
Direct Current (DC)		62.5 Hours TT
1. Orientation		2
2. Metric Notation		7
3. DC Theory		6
4. Resistors		2
5. DC Calculations		17
6. Safety and First Air		2
7. Multimeters		17
8. Resistor Troubleshooting		8
9. Written Test and Critique		1.5
	TOTAL	62.5

COURSE MATERIAL		
Alternating Current (AC)		53 Hours TT
1. AC Theory		9
2. Test Equipment		12
3. Inductors		9
4. Capacitors		9
5. RCL Circuits		9.5
6. Wave Shaping Circuits		3
7. Written Test and Critique		1.5
	TOTAL	53

COURSE MATERIAL		
Electromagnetic Devices		32.5 Hours TT
1. Transformers		9
2. Relays and Solenoids		9
3. Motors and Generators		6
4. Synchro/Servo/Resolver/Transducer		7
5. Written Test and Critique		1.5
	TOTAL	32.5

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COURSE CHART *(Continued)*

COURSE MATERIAL	HOURS
Power Supplies	53.5 Hours TT
1. Diodes	11.5
2. Rectifiers	6.5
3. Filters	4
4. Bipolar Junction Transistors	7
5. Regulators	8
6. Power Supply Troubleshooting	15
7. Written Test and Critique	1.5
TOTAL	53.5

COURSE MATERIAL	
Amplifier and Wave Generating Circuits	42.5 Hours TT
1. Transistor Amplifier Circuits	17
2. Special Purpose Amplifiers	1.5
3. Wave Generating Circuits	18
4. Special Purpose Devices	1.5
5. ESD/EMP/EMI	3
6. Written Test and Critique	1.5
TOTAL	42.5

COURSE MATERIAL	
Digital	36 Hours TT
1. Digital Numbering System	12
2. Logic Gates	8
3. Digital Logic Circuits	13.5
4. Written Test and Critique	1.5
5. Course Critique	1
TOTAL	36

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PAGE 3 OF 4

COURSE CHART *(Continued)*

COURSE MATERIAL	HOURS
Communication Fundamentals	30 Hours TT
1. Communication Mediums	7
2. AM Systems	11.25
3. FM Systems	10.25
4. Written Test and Critique	1.5
TOTAL	30

COURSE MATERIAL	
Networking	32 Hours TT
1. Network Fundamentals	30
2. Written Test and Critique	1.5
3. Course Graduation	.5
4. End of Course Appointments	2
TOTAL	34

COURSE MATERIAL	Hours TT
Summary of changes: Course chart implements the new AETC course numbering system. Course content is unchanged from the course chart dated 28 Feb 2005 and meets the training requirements established at the Electronic Principles U&TW 23-27 June 03.	
E3ATR2A020 00AA Electronic Principles Course replaces E3ATR2E020-013 course and fulfills the training requirements outlined in the Oct. 2004 Course Training Standard.	
Course hour total remains 344 hours.	
TOTAL	

AETC FORM 449, 20090812

PAGE 4 OF 4

Attachment 11

SAMPLE AETC FORM 469, CAREER DEVELOPMENT COURSE CHART, AND PRODUCTION PLAN

Figure A11.1. Sample Career Development Course Chart.

CAREER DEVELOPMENT COURSE CHART	DATE SUBMITTED 20070529	APPROVAL DATE

TO	FROM
336 TRS/TTRA	Det 2, 336 TRS/UUPA (MSgt. Roger Wood, DSN XXX-XXXX)

CDC TITLE
Public Affairs Journeyman

SUPPORTS AFSC	TYPE OF PROJECT		NEXT MAJOR SKT DATE
3N051		INITIAL X REV	20090210

APPLICABLE STS AND DATE	RESIDENT TRAINING USE ESTIMATED REQUIREMENT
3N0X1 CFETP/STS Dec 2002	

ENROLLMENT PREREQUISITES
This CDC is open for enrollment to anyone assigned duties in the 3N0X1 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 3N051.

MANUSCRIPT SUBMISSION DATES *(Asterisk common volumes)*			COMMON VOLUMES IDENTICAL TO	
VOL NO	TITLE	SUBMISSION DATE	VOL NO	COURSE NO
1	Public Affairs Career Field	20080726		
2	Public Affairs Activities, Programs and Products	20080902		

REMARKS
1. Customer need date is NLT 10 Feb 09
2. Expected activation date is 10 Feb 09
3. Delivery date to AFIADL is NLT 2 Sep 09
cc: AFIADL/DCA; AFOMS/OMD; 2 AF/A3; 81 TRSS/TSOP; SAF/PA

NAME AND GRADE OF WRITERS	ORGANIZATION	TELEPHONE NO
ROGER WOOD, MSgt, USAF	Det. 2, 336 TRS/UUPA	DSN XXX-XXXX

REVIEWED BY	
TYPED NAME AND TITLE JANICE JONES, Training and Development Chief	SIGNATURE
COORDINATED BY	
TYPED NAME AND TITLE LEONARD LAUGHLIN, CDC Manager	SIGNATURE
APPROVED BY	
TYPED NAME AND TITLE MACK MALLOY, Training Manager	SIGNATURE

AETC FORM 469, 20090812 Supersedes AETC Form 469, 20080703

CAREER DEVELOPMENT COURSE CHART *(CONTINUED)*	CDC NUMBER 3N051
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 Functional Responsibilities
	MAJOR TOPICS Commanders' Responsibilities Public Affairs Officer Responsibilities Air Force Member/Employee Responsibilities
CHAP NO 3	CHAP TITLE Communication Planning
	MAJOR TOPICS Research Planning Execution Evaluation
CHAP NO 4	CHAP TITLE Internal Information
	MAJOR TOPICS Purpose Target Audience Mediums Employed Other Products, Services
CHAP NO 5	CHAP TITLE Media Operations
	MAJOR TOPICS Purpose General Release of Information Information on Operational Issues Working with the Media

AETC FORM 469, 20090812

PAGE 2 OF 2

Figure A11.2. Sample Production Plan.

29 October 2009

PRODUCTION PLAN
CDC 3N051 PUBLIC AFFAIRS JOURNEYMAN

1. The current Public Affairs Career Development Course, 3N051, published in 2003, must be revised to correct inaccurate information and to deemphasize subjects/material in accordance with current public affairs programs and procedures.
2. The decision to revise the 3N051 CDC was made following discussion with the career field manager and subject matter experts.
3. The career field will conduct a utilization and training workshop to update the career field education and training plan to accurately reflect current career field policy and procedures. The update will involve minor revisions, some deletions, and restructure.
4. CDC units will be renamed and rearranged to accurately identify subject matter and to better organize information based on similarity. For example, public affairs programs and activities (media, community relations, internal information, and security and policy review) are addressed in two volumes, which will be combined into one volume. Generic training information and much of the newspaper design and layout information will be deleted.
5. CDC Projected Activation Date Justification: The CDC will be activated (date). The customer need date is (date). Volume submission will follow career field manager review. Submission dates are proposed based on the following schedule:

a.
b.
c.
d. The following are start and submission dates for each volume:

1) Volume 1	(Date)	(Date)
2) Volume 1	(Date)	(Date)

e. The terminal volume final delivery date is (Date). Upon receipt AU/A4L requires 150 days for processing. This puts the projected field need date at (date).

6. Send questions or concerns about this plan to the CDC writer at (email address) or call DSN (number).

Writer Signature Block and Signature

Attachment 12

COURSE CONTROL DOCUMENT DECISION MATRIX

	Skill Level Courses		Supplemental Courses			Special Training
	Initial Skills	Advanced (7-Level)	Orientation / Familiarization	Seminar / Symposia (Agenda-Driven*)	Standard Supplemental	Type 2
CTP	YES	YES	YES	NO	YES	NO
STS	YES	YES	NO	NO	NO	YES
CTS (Proficiency)	NO**	NO	YES	YES	YES	YES, if no STS
CTS (Behavioral)	NO**	NO	YES	YES	YES	YES, if no STS
CC (Standard)	YES	YES	YES	YES	YES	YES
POI/Lesson Plan	YES	YES	YES	YES	YES	YES
Course Outline/ Syllabus	NO	NO	YES	YES	NO	NO
Measurement	YES	YES	YES	YES	YES	YES

*Fifty percent or more of the course subjects/topics change from class to class and 50 percent or more of the subjects/time is taught by guest lecturers. Back-up lesson plans covering guest-lecturer material are not required.

Note: A new/abbreviated CTP and course number/PDS code are not required for each course iteration **Officer initial skills and type 5 courses typically utilize a CTS. If a CTS is used, it must be measured.

Attachment 13

ACTUAL TRAINING DEFICIENCY REPORT FORMAT

Date

MEMORANDUM FOR XXX TRG/CC
XXX TRW/CC
2 AF/TTOC
HQ AETC/A3T (HQ AETC/SGNU for medical AFSCs)
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 rank, unit/office symbol, DSN.

Signature Block Name, Grade, USAF
Commander (or designee's title)

Attachment 14

ANTICIPATED TRAINING DEFICIENCY REPORT

Date

MEMORANDUM FOR XXX TRG/CC
XXX TRW/CC
2 AF/TTOC
HQ AETC/A3T (HQ AETC/SGNU for medical AFSCs)
HQ USAF/XX (AFCFM)

FROM: XXX TRS/CC (or designated office)

SUBJECT: Anticipated Training Deficiency Report (Course Number, Title)

1. Training standard: (number and date)

2. STS/CTS paragraph number(s) 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 anticipated deficiency:

6. Planned corrective action:

7. Expected ‘get well’ date:

8. Point of contact: Training Manager name, unit/office symbol, DSN.

Signature Block Name, Grade, USAF
Commander (or designee’s title)

Attachment 15

MOVING A COURSE TO STUDENT MANAGEMENT

A15.1. Process. Moving a course to student management (SM) allows users to move course data developed in the course design and development software into SM. The course design and development software initiates a validation check before the actual move can take place. Certain criteria must be satisfied, but the system will not know if the information is correct, so double check to ensure all information identified in Figure A15.1 has been addressed.

A15.2. Responsibilities. The course design and development software user must be at least a TM/PM or faculty development chief to access the project tools phase, and must have a valid SM user ID and password to start the move to student management task. Users must manually check to ensure all information is correct to avoid conflict with other systems. The information required in Figure A15.1 must be correct before the move.

Figure A15.1. Course Move to Student Management Matrix

PHASE	TASK	SUBTASK
Project tools	Validation report	Validate project (correct noted problems)
Project overview	Enter project data	Domain (instructor's domain)
		Source (flight responsible for training numbers)
		Subject area (populated)
		AFSC (populated)
		Old course (listed or none selected)
		Old course revision date
Training plan	Course ID and PDS	Course ID (valid number)
		PDS code (populated)
		Course title (populated)
		Start date (30 days or more)
		CCAF accreditation
		Credit hours
Objectives and Tests	Objective Time and Measurement	**Technical training use only** Technical, other, or tests
POI and CC	CC	Course Length (total hours must match Table II)

Attachment 16 (Added)

BATTLEFIELD AIRMEN RM ASSESSMENT WORKSHEET

Open Water Reservoir Swim

Hazards	Probability of Mishap	Effect of Mishap	Risk Level	Controls Implemented	Residual Probability	Residual Effect	Residual Risk Level
Drowning	Seldom	Catastrophic	High	- Two safety boats/ARCs in the water at all times. - Students swim in teams & wear safety floatation - Pararescue man (EMT-P) on station with medical kit (medical ruck, oxygen, spine board, litter) - Treat all injuries IAW established medical directives (Pararescue Medication and Procedure Handbook, Third Edition,	Unlikely	Catastrophic	Medium

Hazards	Probability of Mishap	Effect of Mishap	Risk Level	Controls Implemented	Residual Probability	Residual Effect	Residual Risk Level
				February 2005) - Cadre phone to activate EMS (911 is primary, advise if life-flight is req/Ranger station 302-4280)			
Hypothermia /Hyperthermia /Dehydration	Seldom	Critical	Medium	- Wet suit thermal protection IAW AFI 16-1202 - Students given regular hydration breaks - 4 Igloo coolers with ice/water available - Cadre monitor all students from safety boat/ARC - Treat IAW PJ Medical Handbook, activate EMS	Unlikely	Critical	Low

Hazards	Probability of Mishap	Effect of Mishap	Risk Level	Controls Implemented	Residual Probability	Residual Effect	Residual Risk Level
Animal/snake bites or insect stings	Seldom	Critical	Medium	- Hazardous wildlife briefed, avoid at all costs - Students wear BDUs/ booties for PPE - Treat IAW PJ Medical Handbook, activate EMS	Unlikely	Critical	Low
Civilian Watercraft	Occasional	Moderate	Medium	- Safety boat/ARCs direct approaching civilian traffic away from students in the water - Diver buoy used to identify swimmers - Marker buoys identify swimmer lanes	Unlikely	Moderate	Low
Severe Weather/Environmental Conditions	Occasional	Moderate	Medium	- Training will cease during severe	Seldom	Moderate	Low

Hazards	Probability of Mishap	Effect of Mishap	Risk Level	Controls Implemented	Residual Probability	Residual Effect	Residual Risk Level
				weather (lightning visible or reported within 5 miles) - GPS radios give on site weather updates - ARCs capable of towing students to shore - Cease training and contact Park Rangers if biological incident is suspected			
Incident traveling to and from the training area	Seldom	Critical	Medium	- Ensure vehicle is checked and 1800 signed - Follow all speed limits and road laws - Treat IAW PJ Medical Handbook, activate EMS	Unlikely	Critical	Low

Hazards	**Probability of Mishap**	**Effect of Mishap**	**Risk Level**	**Controls Implemented**	**Residual Probability**	**Residual Effect**	**Residual Risk Level**
Injury while operating Watercraft	Seldom	Critical	Medium	- Instructors certified in Watercraft use - Instructors conduct pre-safety briefing - Mandatory use of PPE (Helmet, Life vest) - Treat IAW PJ Medical Handbook, activate EMS	Unlikely	Critical	Low

OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED:

(Base on most serious remaining residual risk level)

EXTREME-HIGH HIGH MEDIUM LOW

X

Ground Safety Manager or Chief of Safety Signature/Date

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(For General Operations of an Ongoing Nature a Base

Safety Review is recommended)

RISK ACCEPTANCE

Signature and Date

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JOHN DOE, Lt Col, USAF

Commander, 342d Training

Hazards	Probability of Mishap	Effect of Mishap	Risk Level	Controls Implemented	Residual Probability	Residual Effect	Residual Risk Level

Squadron