This instruction implements and extends the guidance in Air Force Program Directive (AFPD) 36-26, Total Force Development. It establishes responsibilities and procedures for designing, developing, and maintaining DL, IMI, and BL for technical training courses administered by units aligned under Second Air Force (2 AF) and Air University (AU) within Air Education and Training Command (AETC). It also applies to the 59 TRG of the 59 MDW for AF only medical courses. Training group (TRG) commanders (CC) are responsible for implementing this instruction at AETC training wings. Certain aspects of DL training administration apply to or may impact the Air National Guard (ANG) and Air Force Reserve Command (AFRC). This instruction is directive in nature and failure to adhere to standards set forth in this instruction may result in adverse actions. This instruction requires collecting and maintaining information protected by the Privacy Act of 1974 authorized by 10 U.S.C. 8013 and EO 9397. System of records notice F036 AF PC Q, Personnel Data System (PDS) and DPR 34 DoD Defense Civilian Personnel Data System, applies. Ensure all records created as a result of processes prescribed in this publication are maintained IAW 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). Send recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, Recommendation for Change of Publication. Route AF Forms 847 from the field unit through the training group, training wing and 2 AF to HQ AETC/A3P. Supplement this instruction and
other applicable instructions to establish organization-specific guidance. (T-2) Commanders will send proposed supplements to this instruction through their chain of command to HQ AETC/A3P for review and coordination prior to publishing. (T-2) The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, and T-3") number following the compliance statement. See Air Force Instruction (AFI) 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Unless otherwise specified, requests for waiver must be submitted by the group or wing commander through 2 AF to HQ AETC/A3P.

**SUMMARY OF CHANGES**

This instruction establishes roles, responsibilities, processes, and procedures for designing, developing, and maintaining interactive multimedia instruction (IMI), distance learning (DL), blended learning (BL), and advanced distributed learning (ADL) course material to promote cost-effective delivery methods for technical training and Basic Military Training (BMT). The concept of blended learning is now included and defined. The 508 compliance guidance is updated and procedures for establishing undue burden are clarified. This instruction contains updates to office symbols and significant changes to roles and responsibilities and should be thoroughly reviewed.

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Chapter 1

PROGRAM OVERVIEW

1.1. Purpose of this Instruction. Establishes roles, responsibilities, processes, and procedures for designing, developing, and maintaining IMI, ADL, DL and BL course material to promote cost-effective delivery methods for technical training and BMT.

1.2. IMI.

1.2.1. Overarching term for electronically delivered, dynamic instruction that supports training or achieves training objectives.

1.2.2. Uses words, audio, graphics, images, or videos to deliver information in stand-alone formats, instructor-led presentation, or to support on-the-job training.

1.2.3. Conveys information in diverse visual formats to create rich learning experiences.

1.2.4. Harnesses technology to illustrate complex, difficult-to-grasp technical concepts to students.

1.2.5. Implemented in a variety of contexts:

   1.2.5.1. Computer-based instructional programs.

   1.2.5.2. Web-based training.

   1.2.5.3. Blended learning modules.

   1.2.5.4. Technology insertions within instructor-led training.

      1.2.5.4.1. Supplement to resident instruction programs.

      1.2.5.4.2. Integrated directly into a traditional classroom or laboratory course of instruction.

      1.2.5.4.3. Useful for student remediation, self-study, training refreshers, practice and testing of student retention.

1.3. DL.

1.3.1. Structured learning that does not require the physical presence of an instructor.

1.3.2. Extends the training capabilities of schools to meet specific training needs in place of resident training.

1.3.3. Can be delivered in any form, including, but not limited to internet-based instruction, digital video disk (DVD), mobile applications, etc.

1.3.4. Allows AETC to meet immediate training demands with potentially reduced student man-hours and cost.

1.4. BL.

1.4.1. An overarching term for three aspects of “blended”: Blended instructional method (synchronous/asynchronous), blended location (DL/in-residence) and blended technology (variety of technology use).
1.4.2. May encompass multiple IMI products.

1.4.3. Capitalizes on available and state-of-the-art technologies and learning strategies (e.g., Learning Management Systems, IMI, streaming video, audio and text, live virtual classroom, discussion threads, collaborative learning, etc.) to achieve learning objectives while engaging a variety of learner styles.

1.4.4. May potentially reduce costs and minimize time spent away from the member’s home station.

1.5. ADL.

1.5.1. Overarching term for web-hosted training, education, and performance-aiding products. ADL provides access to web-based reusable content by integrating content and learning management systems, web applications services, web access devices, and connectivity.

1.5.2. Further extends the training capabilities of schools to meet specific training needs by enabling nearly anywhere, anytime access to learning and performance-aiding products.

1.5.3. Leverages the Shareable Content Object Reference Model (SCORM) to enable accessibility, durability, reusability, maintainability, and interoperability of web-based learning and performance-aiding products.

1.5.4. The AF emphasis is on converting courses to ADL instruction where appropriate, to deliver training anywhere, anytime. ADL is the evolution of DL and, although agencies may use different terms (e.g., exportable training, Type 6, AETC Distance Learning (DL), etc.), all fall within the AF definition of ADL.
Chapter 2

PUBLICATION DISCIPLINE AND PROCEDURES FOR HANDLING WAIVERS

2.1. Responsibilities. It is the responsibility of all AETC personnel (Officer, Enlisted, and Civilian) to comply with all levels of policy, directives, instructions, and other written guidance to ensure the AETC mission, “recruit, train, and educate professional Airman to sustain the combat capability of America’s Air Force”, as stated in Air Force Mission Directive (AFMD) 3, is completed in a safe, effective, and efficient manner. Commanders are responsible for enforcing and establishing a climate that promotes policy discipline.

2.2. Publications. Official Air Force publications are the only approved vehicles for issuing official policy and/or guidance. Commanders should supplement this AETCI to tailor procedures for the unique aspects of their unit’s mission where more detailed guidance or specific procedures will enhance training operations. Units shall adhere to AFI 33-360, Publications and Forms Management when developing and publishing directives, instructions, supplements, and operating instructions.

2.3. Compliance Terminology. For the purposes of this instruction, the following definitions apply:

2.3.1. Shall, Must, Will - Indicate mandatory requirements; “will” is also used to express a declaration of purpose for a future event.

2.3.2. Should - Indicates the preferred method of accomplishment.

2.3.3. May - Indicates an acceptable or suggested means of accomplishment.

2.4. Waivers.

2.4.1. Purpose. Approved waivers provide temporary relief and allow for non-compliance with existing guidance. An individual is not permitted to accept the risk for non-compliance or be less restrictive with mandatory requirements without receiving written approval from the tiered approval authority. Exception: When local conditions are deemed unsafe and there is a clear and present danger to personnel or damage to equipment, a commander may, in writing, temporarily exempt an activity directed by this instruction. Note: If the condition is expected to continue for more than 72 hours, then a waiver is required.

2.4.1.1. Acceptance of risk for tiered compliance items is not transferable from one commander to another; therefore, approved waivers for tiered compliance items expire 30 days after the change of command of the commander accepting the risk.

2.4.1.2. Waivers become void when canceled in writing by the approval authority, the publication is revised, or the requested waiver period expires.

2.4.2. Waiver authority.

2.4.2.1. On behalf of the AETC/CC, the Director Headquarters (HQ) AETC/A2/3/10 or their deputy is the approval authority for Tier 1 (T-1), Tier 2 (T-2), and non-tiered compliance items mandated by this instruction.

2.4.2.2. Wing/CC or an independent Group/CC is the approval authority for Tier 3 (T-3) compliance items. Note: The Wing/CC may delegate no lower than a Group/CC.
2.4.3. Requests for waiver. In accord with (IAW) AFI 33-360, commanders should request special consideration be given to waive mandatory requirements to published guidance when (1) the cost of compliance creates an unacceptable risk to a higher priority task, when (2) the cost of compliance outweighs the benefits, or when (3) there is a lack of resources. Waiver requests communicate the risk management decision for non-compliance to the approval authority for consideration. **Note:** Commanders will not implement risk mitigation measures until the waiver is approved.

2.4.3.1. Waiver requests must come from the commander (or civilian equivalent) of the unit seeking relief.

2.4.3.2. Waiver requests must be routed through the functional chain of command (Squadron, Group, Wing and Center, or Numbered Air Force (NAF) commander) to the approval authority for final disposition.

2.4.3.2.1. By concurring with the request, each higher echelon commander (or civilian equivalent) acknowledges and concurs with the requesting commander’s inability to comply with published guidance.

2.4.3.2.2. The approval authority may approve or disapprove a request in its entirety or modify the risk mitigation measures.

2.4.3.2.3. If a waiver request is disapproved, the waiver authority has determined requesting commander must comply with published guidance as written.

2.4.3.3. Submit waiver requests using the AF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval*. If the form is not available, then an indorsement memorandum may be used and must include:

2.4.3.3.1. Reference: Identify the specific policy reference(s), publication number, paragraph number, and specific “text” to be waived.

2.4.3.3.2. Rationale: Explain which of the 3 reasons listed in 2.4.3 apply in terms of training, funds, equipment, facilities, guidance, or personnel and describe in detail why this is an issue. See AFI 33-360 for further guidance.

2.4.3.3.3. Duration: Time period or circumstance for which the waiver will be required.

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

2.4.3.3.5. Impact. Describe the negative impact if the waiver is disapproved.

2.5. **Management Internal Control Toolset (MICT).** Commanders requesting waivers to this instruction will upload all requests for the waiver and its final disposition into MICT for inspection activity review.

2.6. **Process Improvement.** All personnel should use Air Force Continuous Process Improvement tools and/or techniques for process improvement efforts to develop countermeasures and coordinate corrective actions to close performance gaps discovered through self-assessments, inspections, quality controls, measures, and metrics. Use the results of these events when requesting changes and waivers to this publication.
Chapter 3

ROLES AND RESPONSIBILITIES

3.1. AETC/A5T (Technology Integration Division).

3.1.1. AETC/A5TV is the AF SME for issues regarding designing, developing and hosting ADL courses intended to be hosted on the ADLS or the Enterprise Blended Learning Service (EBLS) platform. AETC/A5TV provides guidance, works issues, and provides resources for AETC organizations producing ADL courses.

3.1.2. Funds and manages the AF Advanced Distributed Learning Program (AFADLP), which includes the Advanced Distributed Learning Service (ADLS) and the EBLS.

3.1.3. Administers, funds, and maintains the AF Learning Content Management System (AF LCMS).

3.1.4. Identifies procedures for determining ADL content and product conformance to the current published Sharable Content Object Reference Model (SCORM) requirements.

3.1.5. MAJCOM SME for application of Section 508 of the Rehabilitation Act within ADL products. Provides guidance, works issues and provides resources for assessing compliance of ADL products with Section 508 of the Rehabilitation Act.

3.1.6. Assists HQ AETC/A3T to coordinate with developers on projected conversion/development projects.

3.1.7. Upon request from A3T, reviews media and cost/benefit analysis portion of course resource estimate (CRE) and abbreviated/course training plans involving the use of learning technology and advises A3T on alternative technologies, if appropriate.

3.1.8. Explores technologies to satisfy long range objectives by searching and experimenting with new and evolving products and concepts.

3.1.9. Coordinates integration issues for identifying, developing and evaluating the application of emerging technologies in the learning environment.

3.1.10. For centralized AETC-funded technical training contracted efforts HQ AETC/A5TV:

3.1.10.1. Performs Contractor Officer Representative (COR) duties working directly with the contracting office.

3.1.10.2. Coordinates with 2 AF/TTOC, the training manager (TM), and the appropriate Instructional Technology Unit (ITU) on management and oversight of contracted projects.

3.1.11. Provides the ITU with the applicable contracting documents to assist in performing quality assurance (QA) functions.

3.2. AETC/A3T (Technical Training Division).

3.2.1. Tasks TRG to conduct a front end analysis (FEA), as part of the CRE, on applicable topics (specific tasks or knowledge) or new requirements if not already accomplished through other methods such as the Training Planning Team (TPT), Specialty Training Requirements Team (STRT), or the acquisition processes.
3.2.2. Reviews CRE and/or CTP to ensure alternate delivery methods have been evaluated.

3.2.3. For new or changing instructional technology application requirements, checks the results of the FEA.

3.2.4. Ensures rationale on why a specific media was recommended is included in the FEA.

3.2.5. Works with appropriate offices to resolve any problems with delivery of Type 6 DL/BL courses to operational units.

3.2.6. Coordinates with MAJCOM customers on projected conversion/development projects.

3.2.7. Reviews summary/results of FEA and schoolhouse TRG recommendation for resource implications.

3.2.8. Tasks the TRG for additional information, if required.

3.2.9. Coordinates with the applicable Air Force Career Field Manager (AFCFM) for final determination if DL/IMI/BL is preferred option.

3.2.10. Coordinates CRE with the following offices, as applicable for DL/IMI/BL course projects if resources not available at the Training Wing (TRW)/TRG level.

   3.2.10.1. Requests HQ AETC/A5TV to review the FEA, and advise HQ AETC/A3T on alternative technologies, if appropriate.

   3.2.10.2. Requests 2 AF/TTOC to explore feasibility of an ITU in another TRG accomplishing the project.

       3.2.10.2.1. Explores the feasibility of diverting funds to support a development effort.

       3.2.10.2.2. Determines whether approved project or projects should be delayed and resources reapplied to support new development.

       3.2.10.2.3. Coordinates actions with affected TRGs and AFCFMs, as applicable.

   3.2.10.3. Coordinates new hardware (HW) or software (SW) requirements with HQ AETC/A5/8/9, and HQ AETC/A6.

3.2.11. Requests HQ AETC/A3RB assist with AETC POM.

3.2.12. If funding is not available at the time CRE coordination is completed, informs HQ AETC/A5T, A3RB, A1MRT; AFCFM; 2 AF/TTOC; and the TM.

3.3. AETC/A3P (Technical Training Strategic Planning and Policy Division).

3.3.1. Develops and administers technical and basic military training policy.

3.3.2. Reviews and coordinates on implementing supplements.

3.3.3. Evaluates waivers for approval or disapproval.

3.3.4. Interprets and helps resolve DL/IMI/BL policy questions.

3.4. AETC/A3R (Resources and Requirements Division).

3.4.1. Validates and prioritizes overall resources required, and submits operations and training funding, and manpower requirements for IMI during various budget exercises.
3.4.2. Develops and coordinates any DL/IMI/BL POM submissions with HQ AETC/A8P.
3.4.3. Coordinates with HQ AETC/A3T to process CREs and CTPs.

3.5. **AETC/A5RT (Technical Training Requirements Branch).**

3.5.1. Lead agent for industry IMI acquisition for new and significant updates to Maintenance Training Systems (F-35, KC-46, Space Systems, Combat Rescue Helicopter (CRH), B-2A, etc.).
3.5.2. Works technical, funding and policy issues impacting industry design.
3.5.3. Develops Contract Data Requirements Lists (CDRL) and Data Item Descriptions (DID) to ensure industry developed IMI meets USAF technical and basic military training policy.
3.5.4. Leads IMI Acceptance Testing Procedure (ATP) reviews validating industry developed IMI.

3.6. **MAJCOM OPR.** *(Note: See AFI 36-2201, Air Force Training Program, for more information on MAJCOM and Base DL POC responsibilities.)*

3.6.1. Provides coordination and integration of the Type 6 DL/BL program.
3.6.2. Appoints base-level DL POC and provides names to the 2 AF/TTOC.

3.7. **2 AF/TTOC.**

3.7.1. Works technical, funding, and policy issues impacting the Type 6 DL/BL program.
3.7.2. Oversees execution of technical training Type 6 DL/BL program.
3.7.3. Maintains IT Working Group and DL POC Master List SharePoint Sites.
3.7.4. Coordinates IMI/DL/BL requirements with HQ AETC/A3T and A3R. Assists HQ AETC/A3RB in building the IMI/DL/BL submissions for the AETC POM.
3.7.5. Provides HQ AETC/A3T and HQ AETC/A3PV a consolidated quarterly status report on all development/conversion and interactive courseware maintenance.
   3.7.5.1. Establishes standardized cost factors for quarterly status report and provides this information to the Training Wing/Groups annually for conducting FEAs.
   3.7.5.2. Forwards the report to HQ AETC/A3T within 30 days of receipt with an information copy to AETC/A3PV. *(Note: Posting to an established SharePoint is acceptable.)*
3.7.6. Establishes base DL/BL POC responsibilities and maintains a master list.
3.7.7. Coordinates distribution of DL/IMI/BL projects to other ITUs based on project loads, projections and requests.

3.8. **Air Force Career Development Academy (AFCDA).**

3.8.1. Sets Career Development Courses (CDC) IMI guidelines.
3.8.2. Coordinates and approves changes to *Guide for Authors of Interactive Multimedia (IMI Guide).* Coordinates changes with HQ AETC/A3PV before publication and implementation.
3.8.3. Reviews and approves CDC IMI lessons before publication and release. **Exception:** Due to classification requirements, the 17th Training Group, Goodfellow AFB TX, will review, edit, and distribute cryptologic and other CDCs and Job Knowledge Development Courses (JKDC) without coordinating with AFCDA.

3.8.4. Duplicates and distributes CDC IMI.

3.8.5. Develops and manages CDC examinations.

### 3.9. Training Wing/Groups.

3.9.1. Ensures all proposed IMI projects for use in formal training courses (to include contractor and training squadron [TRS]-developed IMI) are coordinated with the ITU before development begins.

3.9.2. Ensures TMs conduct or delegate FEAs to the ITU to determine the most effective and efficient means for training delivery.

3.9.3. Ensures DL/BL is considered as an option for supplemental courses.

3.9.4. Develops IMI projects locally when funds and manpower are available.

3.9.5. TM will forward CRE to HQ AETC/A3T with cc to 2 AF/TTOC if funds are not available inside the organization. For medical courses include AETC/SGU.

3.9.6. Ensures each Type 6 course is assigned adequate instructor/faculty support to provide subject matter expertise during the development/conversion phase, provide student interaction/support, and maintain currency of course content once the course is delivered.

3.9.7. Establishes requirements for test security.

3.9.8. Ensures a centralized ITU is available to support the development and maintenance of IMI used in formal technical training and BMT courses. **Note:** Either established within the TRW/TRG with direct service to the TRW/TRG or arranged through a Memorandum of Agreement (MOA) serviced from another ITU.

3.9.9. Ensures TRSs (TRS-developed DL/BL/IMI) provide all required lifecycle material to the ITU.

3.9.10. Ensures plans to incorporate IMI into a CDC are coordinated with AFCDA before working on an interactive CDC. **EXCEPTION:** Goodfellow AFB is excluded from coordinating classified CDCs, JKDCs, and other classified products with AFCDA.

### 3.10. Instructional Technology Unit (ITU).

3.10.1. Using a team approach, designs, develops and maintains courseware.

3.10.2. Provides oversight to ensure quality, standardization, and maximum reuse of IMI used in formal technical training and BMT courses.

3.10.3. Maintains expertise required to produce and maintain various forms of IMI used in formal technical training and BMT for the entire life cycle.

3.10.4. Responsible for documenting undue burden information and coordinating a staff package stating the case for justification of situations of non-compliance with Section 508 of the Rehabilitation Act. (T-3)
3.10.5. Stays abreast of new training technologies and instructional design applications by attending conferences and/or training and reading literature associated with new training technologies, instructional models and education application software.

3.10.6. Conducts FEA/media and cost benefit analysis upon TM request.
   3.10.6.1. Reference the process in para 4.1.
   3.10.6.2. Reports analysis results to TM. EXCEPTION: The 367 TRSS will report all analysis results to the requesting MAJCOM(s).

3.10.7. Provides oversight of contractor IMI development.
   3.10.7.1. Assists the TRS with preparing contract work documents (statements of work, statements of objective, or other documents required by the applicable contracting office).
   3.10.7.2. Performs QA functions required by the contracting officer.
      3.10.7.2.1. Ensures contractor-developed DL/IMI complies with applicable directives.
      3.10.7.2.2. Assists in development of quality control measures and standards.

3.10.8. Supports TRSs by attending STRT, Utilization and Training Workshops (U&TW) and other training forums to provide media selection guidance.

3.10.9. Provides Lifecycle Maintenance.
   3.10.9.1. Serves as the life-cycle management activity for both in-house and contractor-developed IMI as explained in Department of Defense Instruction (DoDI) 1322.26.
   3.10.9.2. Ensures life-cycle availability by maintaining a complete inventory of the version of the authoring system, assembly language, or higher order language compiler used to develop the IMI; source code for the IMI; accompanying documentation; associated software libraries; and all other materials necessary and sufficient to modify the IMI.
   3.10.9.3. Provides final IMI product to training development element (TDE) for inclusion in course files.
   3.10.9.4. Revises IMI as requested by TM. Note: The TM may delegate to TDE.
      3.10.9.4.1. When staffing is not available or contractor maintenance is more efficient and funding is available, contractors may be used to maintain IMI.
      3.10.9.4.2. When contractors revise IMI, ITUs and TRSs provide necessary materials and documentation to facilitate revisions.

3.10.10. Maintains records of the labor hours and the costs associated with all in-house IMI development and maintenance projects. As a minimum, document:
   3.10.10.1. Actual development hours.
   3.10.10.2. Actual costs.
   3.10.10.3. ITU time spent on contractor-developed IMI to include, but not limited to, contract administration, modifications to IMI and post-delivery maintenance.
3.10.11. Upon request, assists TRS in developing a validation plan for IMI. Follows the validation guidelines in AETCI 36-2641.

3.10.12. Makes updates to the Project Status Report to meet quarterly reporting requirements and timelines.

3.10.13. Other ITUs. There are two ITUs assigned to training groups under 2 AF that do not develop IMI/DL for formal technical training or BMT—the 81 TRSS Q-Flight and the 367 TRSS.


3.10.13.2. The 367 TRSS.

3.10.13.2.1. Develops, publishes, and maintains IMI products to support aircraft-munitions maintenance continuation training programs with MAJCOMs, per a memorandum of agreement (MOA) between AETC and each MAJCOM.

3.10.13.2.2. Assigns a dedicated liaison familiar with IMI development processes at Scott AFB and Langley AFB to advise MAJCOM A4s.

3.10.13.2.3. Product Requirements Document:

3.10.13.2.3.1. Work product used to develop an understanding with the requirements providers (the customer).

3.10.13.2.3.2. Ensures requirements are documented for traceability purposes, and to obtain a written commitment to project requirements between the customer and the 367 TRSS.

3.11. ITU Staffing. (Note: These requirements do not apply to the 81 TRSS Q-Flight or the 367 TRSS.) ITUs are staffed with civilian and/or military personnel and supported by base support units and TRSs. Contract support may also be part of the ITU team. An ITU staff member can serve in more than one functional capacity on concurrent projects. For example, given the proper skillsets, an IMI instructional designer on one team could serve as an IMI developer on the same team or another team. Instructional designers, computer programmers, SMEs, and audiovisual personnel may be members of more than one project team concurrently. Descriptions of team roles are as follows:

3.11.1. ITU Chief or Commander.

3.11.1.1. A supervisory instructional systems specialist with experience in IMI design and development.

3.11.1.2. Oversees the ITU staff to ensure continuity across lesson and/or content design and delivery.

3.11.1.3. Manages the ITU.

3.11.1.4. Ensures DL/BL/IMI courseware/content is Section 508 compliant.

3.11.2. Project Manager.

3.11.2.1. Assigned for each IMI project.
3.11.2.2. Directs the overall development process, including coordinating with senior management and support organizations via a project plan or similar type of document. Attachment 2 contains a sample project plan.

3.11.2.3. Manages Section 508 Undue Burden documentation process when applicable.

3.11.2.3.1. Works with the TM and TDE Chief.

3.11.2.3.2. Completes and coordinates a staff package stating the case for justification of undue burden with the base Legal Office and the Department of Defense (DoD) Section 508 Compliance Coordinator. (See Attachment 4). (T-3)

3.11.3. IMI Instructional Designer.

3.11.3.1. An instructional systems specialist with experience in IMI design and development.

3.11.3.2. Develops standards and instructional strategies for IMI lessons and/or content.

3.11.3.3. Reviews products for instructional integrity and conformance with IMI quality standards and strategies.

3.11.3.4. Ensures products are Section 508 Compliant.

3.11.4. IMI Developer.

3.11.4.1. Experienced in IMI development and the use of IMI authoring tools.

3.11.4.2. Authors lessons and/or content designs, flowcharts, and storyboards.

3.11.4.3. Designs and/or creates static and animated graphics, simulations, and interactive sequences; and programs lessons and/or content with authoring systems.

3.11.4.4. Ensures products are Section 508 compliant.

3.11.5. Subject-Matter Expert (SME).

3.11.5.1. Has expertise in the subject matter.

3.11.5.2. Typically not assigned to the ITU.

3.11.5.3. Provides information on the subject matter, to include specific technical information and/or operational task requirements to other members of the team.

3.11.5.4. Reviews IMI products to ensure technically accurate course content as opposed to courseware and/or content appearance and functionality to ensure quality and standardization. Note: Training groups will develop local procedures to ensure adequate SME support for ITUs to ensure established delivery schedules are met.

3.11.6. Programmer.

3.11.6.1. Supports the courseware and/or content development effort by programming lessons and/or content with authoring systems or programming languages.

3.11.6.2. Develops:

3.11.6.2.1. Subroutines and writing applications to read or analyze student data files.

3.11.6.2.2. Graphical user interfaces (GUI) with various authoring languages.
3.11.7. **Base Multimedia Center (BMC) Personnel.**

3.11.7.1. Contract, military, or civil service base support personnel who supplement courseware multimedia production requirements.

3.11.7.2. Functionally supports ITU project teams in IMI and Type 6 DL/BL course development through fulfilling multimedia development requirements in a timely fashion. **Note:** ITU military or civil service personnel may not be solely dedicated to multimedia production when multimedia is contracted for the base. Where contract personnel provide base multimedia support, contracts may require amendment to include BMC support of IMI to include arrangements for the required number of multimedia specialists to be dedicated solely to reside with and serve the ITU and associated project teams.

3.12. **Type 6 DL/BL Course Instructor/Faculty/Staff Member.**

3.12.1. Provides student interaction/support to administer Type 6 DL/BL courses.

3.12.2. Training administration.

3.12.2.1. See the Technical Training Management System (TTMS) student management handbook for instructions on how to identify courses using the automated ADLS-TTMS interface capability.

3.12.2.2. For courses designed for self-enrollment delivered via ADLS requiring a proctored test, enters the test score and graduation date for courses after the other student data has flowed from ADLS to TTMS.

3.12.2.3. For courses delivered via ADLS which do not require a written test, instructors or faculty members need not manually enter student data for courses designed for self-enrollment.

3.12.2.4. Course design and delivery dictates when the instructor or faculty member assigned to administer a Type 6 course must input student data into TTMS according to AETCI 36-2642, Technical and Basic Military Training Administration.

3.12.3. Contacts students and/or base DL/BL POCs as required prior to class start date.

3.12.4. Interfaces with students throughout the course, base DL/BL POCs, and students’ supervisors as necessary to ensure timely course completion.

3.12.5. When received, forwards completed elimination surveys to the course TM.

3.13. **Base DL POCs.** Provides administrative support for Type 6 DL/BL courses. The position with roles is more completely outlined in AFI 36-2201 (e.g., controlling examination material, functioning as test control officers, etc.)

3.14. **Training Manager.**

3.14.1. **Schedules and Responds to User Requirements.** Uses requirements identified in Non-Resident (Type 6) annual screening (AFI 36-2616) to build annual schedules (including broadcast schedules if applicable), and to plan and position resources in support of Type 6 DL/BL courses.

3.14.1.1. Addresses out-of-cycle non-resident (Type 6) training requests based on availability of HQ AETC resources.
3.14.1.1.1. Determines whether the request can be met and act accordingly, either scheduling the required resources or advising the MAJCOM that the resources are not available to provide the requested training.

3.14.1.1.2. Responds to requests and plans for additional Compact Disc–Read Only Memory (CD-ROM) and paper-based materials in conjunction with out-of-cycle requests.

3.14.1.1.3. Fills requests for additional materials and class seats if resources and timing permits.

3.14.1.2. Validates and schedules requirements based on the modality (Web cast, interactive television (ITV), synchronous, asynchronous, etc.) and the requirements described in ETCA.

3.14.1.3. Mandatory 7-level courses: Builds the required number of classes to support training requirements. **Note:** AFIMSC/XZT enters student data for active duty students; Air Force Reserve Command (AFRC) and Air National Guard (ANG) enter student data for Reserve and Guard students.

3.14.2. **Conducts or delegates FEA.**

3.14.2.1. See para 4.1. **Note:** If delegated holds the primary role in managing the entire process and results.

3.14.2.2. Ensures it is conducted as early as feasible in the ISD process.

3.14.2.3. As needed, submits a formal request to assist with media/cost benefit analysis from the ITU.

3.14.2.4. Submits results to include the solution set and the recommended solution(s) as part of CRE and/or CTP transmitted to HQ AETC/A3T.

3.14.2.5. Ensures the selected training methods/technologies align with conclusions and recommended solution(s).

3.14.2.6. Supplies a justification memo if implemented solution(s) deviates from the recommended solution(s) in the results.

3.14.3. **Uses Available Experts and Resources to Review for Potential Alternative Methods of Delivery.**

3.14.3.1. TDE instructional system specialists.

3.14.3.2. ITU personnel.

3.14.3.3. SMEs.

3.14.3.4. Input from utilization and training workshop U&TWs.

3.14.4. **Ensures DL Priority for Supplemental Courses.** DL will be considered as the first option to meet training requirements for supplemental courses. **Note:** Hands-on intensive field training supplemental courses are excluded.)

3.14.5. **Follows the Resource Process.**

3.14.5.1. If resources are not available, follows the resource process (para 4.3).
3.14.5.2. Assists HQ AETC/A3RB in building the IMI submission for the AETC POM.

3.14.6. **Manages Distribution.** Works with HQ AETC/A3T training pipeline managers (TPM) and AFCFM to identify initial course distribution locations.

   3.14.6.1. Reproduces and sends/receives course and test materials as needed for courses the distribution function supports.
   3.14.6.2. Uses appropriate safeguards to prevent compromise of written and performance tests.
   3.14.6.3. Sends testing materials to other bases using certified mail or approved encrypted electronic transfer procedures.
   3.14.6.4. Handles classified material according to established security procedures.
   3.14.6.5. Sends student diplomas (AF Form 1256, Certificate of Training) to the base DL/BL POC for local distribution. (AF Form 1256 is prescribed by AFI 36-2201).

3.14.7. **Updates ETCA with Detailed Information.** Includes specific procedures/instructions for base DL/BL POCs in the course announcement. The course announcement specifies:

   3.14.7.1. Registration requirements.
   3.14.7.2. Course delivery requirements.
   3.14.7.3. Customer responsibilities at user sites.
   3.14.7.4. Coordinates with the 2 AF/TTOC prior to finalize ETCA content.
   3.14.7.5. Coordinates with the 2 AF/TTOC, HQ AETC/A3T, and the AFCFM on a message to the field announcing course releases.

3.14.8. **Prepares Alternate Plans.** Develops alternate plans for how to complete training given a training delay or technology malfunction.

   3.14.8.1. Minimizes impact on training by having alternate plans in place.
   3.14.8.2. Keeps memo(s) summarizing training delays in TTMS course records set.

3.14.9. **Forwards Validation Results.** Forwards final validation report results to HQ AETC/A3T and 2 AF/TTOC.

3.14.10. **Takes Action on Negative Elimination Trends.** Determines and implements the best course of action if an elimination trend develops.

   3.14.10.2. Ensures the required changes to the course are instituted.
   3.14.10.3. Follows up to ensure changes produce the desired effects.
   3.14.10.4. Elevates concerns outside AETC’s span of control to 2 AF/TTOC for appropriate action.
3.14.11. **Properly Coordinates CDC IMI.** Coordinates with the ITU serving their TRG before beginning CDC IMI development.
Chapter 4

PROCESSES AND PROCEDURES

4.1. FEA.

4.1.1. See Attachment 1 for the definition.

4.1.2. The FEA, sometimes referred to as a needs analysis (Refer to Military Handbook (MIL-HDBK)-29612-2A needs analysis and AFMAN 36-2234, Instructional System Development for additional guidance):

4.1.2.1. Assesses the technologies available for training the desired skills and knowledge.

4.1.2.1.1. Performs and documents searches or help customers perform searches in any existing functional MAJCOM, AF, DoD DL/IMI, product databases as required by AETC, AF and/or DoD policy.

4.1.2.1.2. Recommends the use of commercial off-the-shelf (COTS) courseware when appropriate. Helps customers identify and evaluate COTS courseware that might meet their training needs. Note: Due to intellectual property laws and copyright laws, COTS courseware will not be modified or incorporated into Air Force-developed IMI without first obtaining written permission from the copyright holder or owner of the courseware.

4.1.2.2. Includes a media analysis to recommend the best mix of delivery media. Reviews the content of each lesson objective and identifies the appropriate media. Examples of potential media solutions include reference videos, training videos, desktop simulators, mobile applications, eBooks, and job aids.

4.1.2.3. Provides cost and development-time comparisons for the feasible alternatives.

4.1.2.3.1. Factors in development, delivery, and costs for new or additional HW or SW.

4.1.2.3.2. Identifies required resources for in-house and contractor-developed IMI projects and establishes timelines for development using guidelines in AFH 36-2235, Volume 5; MIL-PRF- 29612B; MIL-HDBK-29612, Volumes 1-5; and contractor development costs associated with current Type 6 DL/BL course contracts.

4.1.3. Performed as early as possible in the ISD process in order to have a viable solution set and cost comparisons ready to assess and approve.

4.1.4. For new Maintenance Training System development, contractor developed FEA processes and industry standards are acceptable to include IMI design, development, and sustainment IAW industry standards. Note: If the FEA is in conjunction with an acquisition contract, it may include an industry-developed ISD plan. The content of the FEA may vary depending on the program and the contract.

4.2. Training Data Systems Procedures.

4.2.1. See AETCI 36-2641 and AETCI 36-2642 for description and guidance.
4.2.2. Other AETC-adopted/sanctioned Learning Management Systems and DL/BL services may be used to facilitate IMI, DL and BL, but those systems must either interface with the Training Planning System (TPS)/TTMS or course personnel must enter the required course parameters into these systems to enable basic training-related functions (e.g., course scheduling, student management, course evaluation, etc.).

4.3. **Resource Process. Note:** These requirements do not apply to the 81 TRSS Q-Flight or the 367 TRSS.

4.3.1. AETC/A3T requests the TM develop a CRE to begin the resourcing process.

4.3.1.1. The CRE includes the FEA.

4.3.1.2. If the FEA reveals that DL, IMI, BL is either the best solution or part of the solution set then the following figure in to the training plan.

4.3.1.3. Manpower required to support DL, IMI, BL are included in the manpower annex.

4.3.1.4. Specific information on the resources required, to include new or additional HW or SW, to support both in-house and contractor development. **Note:** New software must be vetted with HQ AETC/A5T/A6 for software standardization, compatibility, computer security issues.

4.3.1.5. Recommendation whether the project should be in-house or contracted and includes project priorities.

4.3.1.6. See AETCI 36-2641, Technical and Basic Military Training Development, for additional guidance on developing and compiling CREs and the CTP.

4.3.2. If the TRW/TRG has the funds and manpower to support DL/IMI requirements then the project can proceed with the plan for:

4.3.2.1. In-house development.

4.3.2.2. If contractor support is part of the project recommendation and solution, then the TM works with the local contracting office and the ITU.

4.3.2.3. TM develops the CTP accordingly and notifies HQ AETC/A3T and 2 AF/TTOC that resources are available to proceed with conversion to DL/BL/IMI.

4.3.3. Requesting Higher Headquarters Resources.

4.3.3.1. If resources are not available within the TRG or training wing, the TM will forward the CRE to HQ AETC/A3T with a courtesy copy to 2 AF/TTOC.

4.3.3.2. HQ AETC/A3T will coordinate the CRE with the following offices, as applicable:

4.3.3.2.1. HQ AETC/A5T to review the FEA, and to advise HQ AETC/A3T on alternative technologies.

4.3.3.2.2. 2 AF/TTOC to coordinate actions with TRGs and explore feasibility of accomplishing the project:

4.3.3.2.2.1. Using an ITU in another TRG.
4.3.3.2.2. Through reprioritizing current projects and/or diverting funds from another project to support the development effort under consideration.

4.3.3.2.3. HQ AETC/A5/8/9, and HQ AETC/A6 if the CRE includes requirements for new HW or SW.

4.3.3.3. If funding is not available at the time CRE coordination is completed, HQ AETC/A3T will inform HQ AETC/A5T, A3RB, A1MRT; AFCFM; 2 AF/TTOC; and the TM.

4.3.3.4. If the course resources can be fully funded, HQ AETC/A3T notifies:

- The TM, who proceeds with developing the training plan. At the same time, the TRG begins in-house or contract IMI/Type 6 DL/BL course development.
- The AFCFM of the projected development or conversion of a course to IMI/Type 6 DL/BL, if not already accomplished.


4.4.1. Each fiscal year quarter, the ITUs will report the progress of all projects on the Project Status Report in the format provided by 2 AF/TTOC SharePoint site.

4.4.2. Each ITU will provide one copy of the report to 2 AF/TTOC no later than 15 days following each quarter (for example, 15 April for the January through March quarter). Note: The 81 TRSS Q-Flight and the 367 TRSS will provide required project information directly to 2 AF/TTOC.

4.4.3. 2 AF/TTOC personnel will post the consolidated Project Status Report to the SharePoint site no later than 30 days following the end of the quarter and notify HQ AETC/A3T/A3P when posted.

4.5. Type 6 DL/BL Course Administration.

4.5.1. Annual Screening. Air Staff initiates the Type 6 DL/BL course annual screening concurrently with MRTP screening. See AFI 36-2201 for specific guidance on Type 6 DL/BL course annual screening requirements. Use requirements identified in the annual screening to build annual broadcast schedules, and to plan and position resources in support of other Type 6 DL/BL courses.

4.5.2. Out-of-Cycle Requests.

4.5.2.1. All Type 6 DL/BL course training requests submitted after the annual screening (out-of-cycle) are addressed based on availability of HQ AETC resources.

4.5.2.2. TMs determine whether the request can be met and act accordingly, either scheduling the required resources or advising the MAJCOM that the resources are not available to provide the requested training.

4.5.2.3. Due to the nature of Type 6 DL/BL courses, most out-of-cycle requirements can be met with minimal impact on resources.

4.5.3. Scheduling Training.

4.5.3.1. Asynchronous. Many Type 6 DL/BL courses are designed to be self-paced, asynchronous and require minimal scheduling.
4.5.3.2. Synchronous. Some Type 6 DL/BL courses are synchronous, designed to include interactivity with an instructor or other students.

4.5.3.2.1. The TM validates and schedules requirements, as applicable and/or described in ETCA.

4.5.3.2.2. In some cases, allocations may be limited by the facilities on site or course design.

4.5.3.2.3. Normally the maximum number of students in training or at each base will determine the number of classes needed to meet the training requirement.

4.5.4. **BL Instructional Method.**

4.5.4.1. May consist of asynchronous and synchronous segments.

4.5.4.2. Designed analytically so that when asynchronous course objectives act as prerequisites to synchronous portions of the course(s), completion of prerequisites and course scheduling transitions smoothly between segments.

4.5.5. Additional Scheduling Considerations. Additional thought, planning, and coordination must predicate courses with Guard, Reserve, International and Sister Service requirements.

4.5.6. **Web-Based Training.** Technical training courses accessible via the Internet are available on the ADLS and other approved learning management systems.

4.5.6.1. Students enroll via ADLS and notify the course POC if they need additional materials and when ready to test, if applicable.

4.5.6.2. After the schoolhouse confirms the students have successfully completed the test, schoolhouse personnel will ensure AF Forms 1256 are distributed to graduates.

4.5.7. **Mandatory 7-Level Courses (Web-Based).**

4.5.7.1. TMs build the required number of classes to support training requirements.

4.5.7.2. AFIMSC/AZT suballocates active duty students.

4.5.7.3. AFRC and ANG suballocates Reserve and Guard students.

4.5.8. **Courses Requiring Satellite Time.** The TM provides inputs such as uplink site requirements, downlink site locations, and broadcast schedule to the satellite scheduling function for the local broadcast facility.

4.5.9. **CD-ROM and Paper-Based Courses.**

4.5.9.1. Shipped as directed by the TM.

4.5.9.2. In some cases, a library of materials stored with the appropriate base level DL/BL POC to make materials available to students on an as-needed basis.

4.5.9.3. TMs build required number of classes to support training requirements.

4.5.10. **Training Delivery.**

4.5.10.1. When courses are not housed on a Learning Management System (LMS) the TRS must dispatch training materials:

4.5.10.1.1. NLT 30 days prior to class start date.
4.5.10.1.2. For out-of-cycle requirements, within 15 days of receipt of the request.
4.5.10.2. The process must remain responsive to customer needs.
4.5.10.3. TMs.
   4.5.10.3.1. Should fill requests for additional materials and class seats if resources and timing permit.
   4.5.10.3.2. Work with course personnel to ensure training materials are made available for reproduction and distribution to meet established timelines.

4.5.11. **Student Tracking.**

4.5.11.1. Normally flows from the base DL/BL POC to the TM or to the instructor or faculty member assigned to the course. Exceptions: Web-based Type 6 DL/BL courses where the instructor or faculty member administering the course interacts directly with the student or courses using the ADLS-TTMS interface.
4.5.11.2. Authorized/identified students enroll according to specific procedures identified in the ETCA listing for the course.
4.5.11.3. If there are training delays and/or media malfunctions, the TM.
   4.5.11.3.1. Has alternative plans in place on how to complete the training requirement to minimize delays.
   4.5.11.3.2. Should solicit advice from the instructor or faculty member assigned to the course and the base DL/BL POC in making decisions concerning training delays.
   4.5.11.3.3. Keeps a record summarizing training delays in TTMS course records set.

4.5.12. **Self-paced Courses.**

4.5.12.1. The TM may set up:
   4.5.12.1.1. NLT completion dates, as applicable. **Note:** Exceptions to this may include courses using the ADLS-TTMS interface with after-the-fact reporting.
   4.5.12.1.2. A process where only authorized/identified students enroll according to specific procedures identified in the ETCA listing for the course.
4.5.12.2. The instructor or faculty member assigned to the course may contact the base DL/BL POC as applicable when students miss the completion date, asking the POC to determine the reason for the missed date.
4.5.12.3. Base DL/BL POCs may also initiate requests for course extensions and withdrawals, and submit them to the instructor or faculty member administering the course.
4.5.12.4. The TM (or designated representative) will make the final determination on extensions.

4.5.13. **Elimination Survey.**

4.5.13.1. Purpose is to determine the reasons for not completing Type 6 DL/BL courses (see sample in Attachment 3).
4.5.13.2. The data gathered should cover reasons under and not under direct AETC control.

4.5.13.3. Ensure the elimination survey is available for base DL/BL POCs and completed on all eliminated or withdrawn students. The base DL/BL POC can help in the completion and return of the survey.

4.5.13.4. Returned to the TM or as directed in ETCA course instructions, and forwarded to the course TM.

4.5.13.5. If an elimination trend develops, the course TM will determine the best course of action to reduce/eliminate future eliminations without lowering course standards.

4.5.13.6. TMs.

4.5.13.6.1. Ensure the required changes to the course are instituted and follow up to ensure they had the desired effect.

4.5.13.6.2. Elevate concerns outside AETC’s span of control to 2 AF/TTOC for appropriate action.

4.5.14. Course Completion.

4.5.14.1. TRGs/assigned course personnel.

4.5.14.1.1. Make all decisions on student elimination and graduation using student measurement and any other pertinent data, and input data into TTMS.

4.5.14.1.2. Issue guidance to base DL/BL POCs to enlist their help in conducting course evaluations as necessary.

4.5.14.1.3. Ensure training certificates (AF Form 1256) are prepared IAW published guidance and sent to the DL POC for local distribution, and notify the registrar of course completion.

4.5.14.2. The base DL/BL POCs:

4.5.14.2.1. Ensure course requirements, such as attendance and testing, are met.

4.5.14.2.2. Provide data on students eliminated from training (upon TRG request), and make recommendations on student eliminations.

4.5.14.2.3. Ensure students meet course requirements.

4.5.14.2.4. Administer tests in accordance with course instructions.

4.6. CDC IMI Development.

4.6.1. The TM or CDC writer coordinates with the ITU serving their TRG before beginning CDC IMI development.

4.6.2. TMs, CDC writers, and ITUs refer to AFI 36-2201; AETCI 36-2641 and the Guide for Authors of Interactive Multimedia (IMI Guide) for additional information on IMI CDCs.

4.6.3. ITUs furnish two master-quality copies of CDC IMI to the CDC writer who, in turn, forwards them to the AFCDA for duplication and distribution. EXCEPTION: Goodfellow AFB is excluded for classified materials.
4.6.4. AFCDA.

4.6.4.1. Ensures objectives are tested, regardless of the media.

4.6.4.2. Continues to develop course examinations in paper-based mode until computer-based testing is proven feasible based on field conditions and software compatibility.

4.7. **Section 508 Compliance.** All IMI courseware acquired or developed will comply with Section 508 of the Rehabilitation Act.

4.7.1. **HQ AETC/A5TV.** MAJCOM SME for application of Section 508 of the Rehabilitation Act within ADL products.

4.7.2. **Under Section 508 of the Rehabilitation Act.**

4.7.2.1. Agencies must provide employees and members of the public who have disabilities access to electronic media and information technology that is comparable to the access available to employees and members of the public who do not have disabilities.

4.7.2.1.1. Specific impairments include hearing, visual, mobility/manipulation, and cognitive.

4.7.2.1.2. Individuals with disabilities who are members of the public may generate requests for information or services which are comparable to those provided to individuals with no disabilities.

4.7.2.2. Applies to all Federal agencies when they develop, procure, maintain, or use electronic media and information technology.

4.7.2.3. Enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technology that will help achieve these goals.

4.7.2.3.1. Suitable technology includes software and operating systems.

4.7.2.3.2. Examples of provisions include: alternative keyboard navigation for people who cannot rely on pointing devices, web-based intranet and internet information and applications, and labeling of graphics so they can be converted into audio files or Braille presentations.

4.7.2.3.3. Additional provisions may include the use of text telephones or other assistive listening devices, cation decoders and audio descriptions, self-contained closed products (e.g. kiosks, information transaction machines, and copiers). Built-in accessibility to prevent the need to attach assistive devices can be used along with desktop or portable computers focused on keyboards and other mechanically operated controls, touch screens, biometric forms of identification, ports, and connectors.

4.7.3. **Responsibility to ensure compliance.** ITU personnel are responsible for updating and ensuring IMI courseware/content is Section 508 compliant.

4.7.3.1. Ensure revised or updated courseware/content complies.

4.7.3.2. Ensure information and rules of engagement in business plans and the Statement of Work (SOW) (for courses developed via contract) include appropriate guidance.
4.7.3.3. Use the ADLS 508 Compliance Checklist found in the course submission guide before requesting to upload courses to ADLS.

4.7.4. **Undue Burden.**

4.7.4.1. IAW Department of Defense Manual (DoDM) 8400.01-M, if a DoD Component determines that compliance with U.S. Access Board standards in procurements imposes an undue burden.

4.7.4.1.1. The DoD Component, in coordination with their Office of the General Counsel, shall document why and to what extent compliance with each provision in the standards creates an undue burden and include a copy of the documentation in the contract file.

4.7.4.1.2. The requiring official must clearly explain why meeting one or more of the otherwise applicable technical provisions creates an undue burden, and for each provision that creates an undue burden must describe:

4.7.4.1.2.1. The products or services required.

4.7.4.1.2.2. The dollar value of the acquisition.

4.7.4.1.2.3. The otherwise applicable technical provision that cannot be met.

4.7.4.1.2.4. The market research performed to locate commercial items that meet the applicable standards, and the specific reason(s) why the technical provision cannot be met.

4.7.4.1.2.5. The costs and how they were estimated if monetary expense is deemed prohibitive.

4.7.4.1.2.6. The alternative means by which the DoD Component will provide individuals with disabilities access to the data and information involved.

4.7.4.2. The ITU (e.g., project manager) with assistance from the TM and TDE Chief is responsible for documenting Undue Burden information by completing and coordinating a staff package stating the case for justification on which the base Legal Office and the DoD Section 508 Compliance Coordinator (Complaints, Issues & Concerns Contract Assessments; Alexandria, VA; osd.mc- alex.dod-cio.mbx.section-508@mail.mil) must coordinate in turn.

4.7.4.2.1. Upon request, a copy of the undue burden staff package with completed coordination and comments will be sent to the Air Staff and General Service Administration (GSA) point of contacts.

4.7.4.2.2. The Undue Burden staff package will include as a minimum the major headings and supporting information found at Attachment 4. Note: The 81 TRSS Q-Flight and 367 TRSS will work with their customers and supply required
documentation, as necessary, to meet Section 508 reporting requirements outlined by customer CIOs in accordance with applicable Air Force policy.

JOHN A. CHERREY, Brigadier General, USAF
Director of Intelligence, Operations and Nuclear Integration
Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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MIL-HDBK-29612-3A, Development of Interactive Multimedia Instruction (IMI) (Part 3A), 8 June 2006
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AFI 33-360, Publications and Forms Management, 1 December 2015
AFI 36-2201, Air Force Training Program, 15 Sep 2010
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AFH 36-2235, Volume 5, Information for Designers of Instructional Systems: Advanced Distributed Learning: (ADL) Instructional Technology and Distance Learning, 1 November 2002
AFH 36-2235, Volume 6, Information for Designers of Instructional Systems: Guide to Needs Assessment, 1 November 2002
AFMAN 33-363, Management of Records, 1 March 2008
AFMAN 36-2234, Instructional System Development, November 1, 1993
AETCI 36-2641, Technical and Basic Military Training Development, 26 June 2014
AETCI 36-2642, Technical and Basic Military Training Administration, 24 December 2014

Adopted Forms
AF Form 847, Recommendation for Change of Publication
AF Form 1256, Certificate of Training (LRA)
AF 9, Request for Purchase

Abbreviations and Acronyms

ADA—American Disabilities Act
ADL—Advanced Distributed Learning
ADLS—Advanced Distributed Learning Service
AETC—Air Education and Training Command
AFADLP—AF Advanced Distributed Learning Program
AFCDA—Air Force Career Development Academy
AFCFM—Air Force career field manager
AFI—Air Force Instruction
AFLCMS—Air Force Learning Management Content System
AFMAN—Air Force Manual
AFPD—Air Force Program Directive
AFQTP—Air Force Qualification Training Packages
AFRIMS—Air Force Records Information Management System
AFRC—Air Force Reserve Command
AF LCMS—AF Learning Content Management System
ANG—Air National Guard
ATP—Acceptance Testing Procedure
AU—Air University
BL—Blended Learning
BMC—Base Multimedia Center
BMT—Basic Military Training
CC—Commander
CCAF—Community College of the Air Force
CDC—Career Development Course
CDRL—Contract Data Requirements List
CD-ROM—Compact Disc—Read Only Memory
CIO—Chief Information Officer
COR—Contractor Officer Representative
COTS—Commercial Off-The-Shelf
CRE—course resource estimate
CRH—Combat Rescue Helicopter
CTP—course-training plan
DID—Data Item Description
DL—distance learning
DoD—Department of Defense
DoDI—Department of Defense Instruction
DoDM—Department of Defense Manual
DVD—digital video disc or Digital Versatile Disc
EBLS—Enterprise Blended Learning Service
ETCA—Education and Training Course Announcements
FEA—front-end analysis
FY—fiscal year
GUI—graphical user interface
HQ—headquarters
HW—hardware
IAAFA—Inter-American Air Force Academy
IAW—in accord with
IMI—interactive multimedia instruction
ISD—instructional systems development
ITU—Instructional Technology Unit
ITV—interactive television
JKDC—Job Knowledge Development Course
LMS—Learning Management System
MAJCOM—major command
MCL—master course list
MICT—Management Internal Control Toolset
MIL-HDBK—Military Handbook
MOA—Memorandum of Agreement
MRTP—Mission Readiness Training Program
NAF—Numbered Air Force
NLT—no later than
OPR—Office of Primary Responsibility
PDS—Personnel Data System
POC—point of contact
POM—program objective memorandum
QA—quality assurance
RDS—Records Disposition Schedule
SCO—shareable content object
SCORM—Shareable Content Object Reference Model
SME—subject-matter expert
SOW—Statement of Work
STRT—Specialty Training Requirements Team
SW—software
TCTO—Time Compliance Technical Orders
TDE—training development element
TDY—temporary duty
TM—training manager
TO—Technical Order
TPM—training pipeline manager
TPS—Training Planning System
TRG—Training Group
TRS—Training Squadron
TRSS—Training Support Squadron
TRW—Training Wing
TTMS—Technical Training Management System
U&TW—Utilization and Training Workshop
WBT—web-based training

Terms

Advanced Distributed Learning (ADL)—An evolving, outcomes-focused approach to education, training, and performance aiding that blends standards-based distributed learning models emphasizing reusable content objects, content and learning management systems, performance support systems/devices, web applications services, and connectivity.

Advanced Distributed Learning Service (ADLS)—The Air Force enterprise learning management service (LMS) which delivers (hosts) ADL courses/content, tracks learner progress through learning activities, and provides various reporting capabilities regarding learning accomplishment for the Total Force. The ADLS is sustained by HQ AETC, with the lead
functional responsibility assigned to AETC/A5T. ADLS provides primarily asynchronous web-based training capabilities, along with mission-critical reporting capabilities ranging from individual transcripts to unit-level reports and enterprise training compliance reporting.

**Asynchronous**—Communication in which interaction between the participants is not simultaneous.

**Authoring language**—A set of rules, procedures, words, notation, syntax, and semantics used by an author to specify the logic and content of instruction to be delivered by a computer.

**Authoring system**—A prepackaged, prompted authoring aid, courseware template, or menu-driven editor designed to help authors (without formal computer programming skills) create IMI without elaborate programming. It is often referred to as an authoring package.

**Blended Learning**—a mix of synchronous and asynchronous media methodologies to best meet the instructional goal. It combines face-to-face classroom methods with technology-delivered instruction that can be delivered in a resident or nonresident environment to form an integrated instructional approach.

**Cost effective**—Economical in terms of goods or services received for the money spent.

**Courseware**—An actual instructional package (including content and technique).

**Courseware maintenance**—Repairing, changing, replacing, or any other manipulation of implemented courseware.

**Desktop simulators**—Simulators that use a complete set of cues and consequences related to the training requirements where trainees can practice skills in a realistic artificial training environment. They are capable of launching learner scenarios not possible or practical in the actual setting (e.g., deployment of nuclear weapons, deployment/evasion of weapons in combat, etc.). They provide inexpensive, risk-free practice in use of operational equipment.

**Distance Learning**—Structured learning that does not require the physical presence of the instructor.

**Distributed Learning**—Structured learning mediated with technology that does not require the physical presence of the instructor. Distributed learning models can be used in combination with other forms of instruction or it can be used to create wholly virtual classrooms.

**eBooks**—Electronic versions of a traditional printed document containing advanced features typically in Portable Document Format (PDF) or similar file format. They offer potential for enhanced learning with the ability to highlight material, enter/save user notes, and enlarge or zoom graphics/images. They can contain video and/or audio files, electronically portable and can be viewed on a desktop computer.

**Enterprise Blended Learning Service (EBLS)**—The web-based learning delivery and tracking capability which supplements ADLS (under of the AF ADL Program) by providing improved synchronous learning capabilities, including online classrooms and the ability for collaboration between learners/instructors and learners/learners. EBLS is new to the AF as of Jun 2016.

**Formative Evaluation**—An evaluation employed during the development process that provides information about the effectiveness of training objectives and the student acceptance of training materials. This information is used to guide the refinement of the product under development.
Front-End Analysis—A structured process used to examine training requirements and identify alternative approaches to training job tasks. The process identifies job tasks to be performed, analyzes the skills and knowledge needed to perform them, assesses the technologies available for training the skills and knowledge, performs a media analysis to recommend the best mix of delivery media, and provides cost and lead-time comparisons for the feasible alternatives.

In-house—Within the ITU using ITU staffing and project teams.

Interactive Multimedia Instruction (IMI)—Applies to predominantly interactive, electronically delivered training, education, and instructional support products. IMI products include instructional software and software management tools used to support instructional programs.

Internet—A worldwide system of computer networks (a network of networks) in which users at any one computer can, if they have permission, get information from any other computer.

Intranet—A private network that is contained within an enterprise. It may consist of many interlinked Local Area Networks (LAN) and use leased lines in a Wide Area Network (WAN). When part of an intranet is made accessible to others outside the organization, that part becomes part of an extranet.

Job Aid—A checklist, procedural guide, decision table, worksheet, algorithm, or other device used by job incumbents to aid in task performance.

Learning Management System (LMS)—Software that automates training event administration through a set of services that launches learning content, keeps track of learner progress, determines the order (sequence) that learning objects are to be delivered, and reports student progress and mastery.

Learning Content Management System (LCMS)—An environment where developers may create, store, reuse, manage, and deliver learning content from a central object repository. The LCMS systems have search capabilities, allowing developers to quickly find the text or media needed to build training content. The LCMS products that deliver learning content are a type of the Learning Management System and are subject to the same SCORM conformance requirements as the Learning Management System(s).

Local Area Network (LAN)—All physical hardware and software that drives a data communications computer system confined to a limited geographic area. The area served may consist of a single building, a cluster of buildings, or a campus type arrangement. Typically, the server has applications and data storage that are shared in common by multiple workstation users.

Milestone—A significant or important event in a program or project.

Mobile Application—A type of application software (commonly called app) designed to run on a mobile device, such as a smartphone or tablet. It frequently serves to provide users with similar services to those accessed on personal computers. It consists of generally small, individual software units with limited function.

Multimedia—Combining static media (i.e., text and pictures) with dynamic media (i.e., sound, video, and animation) on the same system.
Needs Analysis—Systematic in-depth analysis and verification of training discrepancies and emerging needs identified by a needs assessment. The results of the Needs Analysis are the definition of performance deficiencies and the isolation of potential solutions. This analytical process addresses the specific nature of the deficiency.

Performance gaps—The delta between desired and actual performance.

Reference videos—Cover selected aspects of a desired subject matter, task, procedure, or time compliance technical order. These videos DO NOT contain step-by-step depictions of the task or procedure.

Sharable Content Object (SCO)—The SCO represents a collection of one or more digital assets that include a specific launchable asset that utilizes the SCORM Run-Time Environment to communicate with Learning Management Systems (LMS). An SCO represents the lowest level of granularity of learning resources that can be tracked by an LMS using the SCORM Run-Time Environment.

Sharable Content Object Reference Model (SCORM)—The SCORM is a collection of specifications that defines a browser-based learning Content Aggregation Model, Run-time Environment, and Sequencing and Navigation protocols for reusable content objects. At its simplest, it is a model that references a set of interrelated technical specifications and guidelines designed to meet DoD high-level requirements for distributed learning content.

Simulations—Any representation or imitation of reality. The representation of the salient features, operation, or environment of a system, subsystem, or scenario.

Simulator—A training device that substitutes for, by emulation, the functions and environment of actual equipment or systems. Any training device, machine, or apparatus that reproduces a desired condition or set of conditions synthetically. Specifically for training, a relatively complex item of training equipment, using electronic/mechanical means to reproduce conditions necessary for an individual, or a crew, to practice operational tasks in accordance with training objectives. It represents the operational equipment physically and functionally to varying degrees and follows the mathematical equations that describe performance.

Storyboard—A layout and detailed graphic description of a single frame or series of frames, arranged sequentially. The frames describe the action and content of the Interactive Courseware (ICW) and specifies all details such as graphics, text, visuals, video, audio, and special effects. It is a graphic depiction that shows the ICW presentation.

Subject Matter Expert (SME)—An individual who has a thorough knowledge of a job, duties/tasks, or a particular topic.

Summative Evaluation—Overall assessment of training at the completion of the developmental process.

Synchronous—Communication in which interaction between the participants is simultaneous through two-way audio or video, computer document conferencing, or chat rooms.

Training aid—An item developed, procured, or fabricated for the purpose of assisting in the conduct of training and the process of learning, such as models, mockups, IMI, audiovisual aids, displays, slides, books, pictures, and magnetic/optical recordings.

Undue Burden—The Department of Justice defines undue burden as "a significant difficulty or expense" consistent with language used in the Americans with Disabilities Act (ADA). Section 508 also provides that if a Federal agency determines that compliance with the standards in procurements imposes an undue burden, any documentation by the agency supporting procurement shall explain why compliance creates an undue burden. Additionally, when it is determined that compliance with the standards imposes an undue burden, the Federal agency shall provide individuals with disabilities with the information and data involved by an alternative means of access that allows the individual to use the information and data.

Wide Area Network (WAN)—A geographically dispersed telecommunications network. This term distinguishes a broader telecommunication structure from a Local Area Network (LAN). A WAN may be privately owned or rented, but the term usually connotes the inclusion of public (shared user) networks.
Attachment 2

SAMPLE PROJECT PLAN

A2.1. This plan constitutes an understanding between the signed parties to work toward the most effective and efficient use of resources for completing IMI/DL/BL development and maintenance. **Note:** The project plan below is just a sample. Change items as necessary to reflect an actual agreement.

Table A2.1. Sample Project Plan.

<table>
<thead>
<tr>
<th>Course Supervisors/SMEs will:</th>
<th>Training Management/TDE will:</th>
<th>The Instructional Technology Unit (ITU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss material to determine if the request can be supported and whether IMI/DL/BL is appropriate.</td>
<td>Review initial request for IMI/DL/BL to ensure compliance with the ISD process and designate a customer representative.</td>
<td>Determine whether the request for IMI/DL/BL development can be supported.</td>
</tr>
<tr>
<td>Assist in the completion of the FEA. Provide a request memorandum to the ITU, signed by the squadron commander, appointing a SME, unless the SME is appointed through other means. The SME must have the authority to make decisions regarding course development and content. The SME must be knowledgeable, reliable, and available during lesson design.</td>
<td>Attend course meetings with course and IMI/DL/BL personnel.</td>
<td>Assist in deciding whether IMI/DL/BL is an appropriate medium, using applicable ISD guidance and other material, as needed.</td>
</tr>
<tr>
<td>Course Supervisors/SMEs will:</td>
<td>Training Management/TDE will:</td>
<td>The Instructional Technology Unit (ITU)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Provide all lesson materials. Review the proposed lesson content with ITU representatives to ensure cost-effective support of objectives. Meet milestones jointly set by ITU and course personnel for lesson development. Identify any changes in advance to the ITU. Provide the ITU an electronic copy of current, complete, and grammatically correct text in Microsoft ® Word format for each objective. Work with ITU to develop storyboards for production of lessons. Review storyboards, indicating approval for use in courseware development.</td>
<td>Review and approve proposed and completed IMI/DL/BL storyboards and lesson materials. Review final lesson to verify lesson is ready for validation.</td>
<td>Provide assistance to course personnel in obtaining lesson materials and text via electronic file transfer or CD/DVD. Design and develop the methods, set and meet milestones required to produce the final product. Identify any changes in advance to TRS. Work with course personnel to storyboard the lesson. Program and edit the lesson when the storyboards are completed, reviewed.</td>
</tr>
<tr>
<td>Review final lesson to verify lesson is ready for validation.</td>
<td>Assist with course validation analysis. Coordinate on changes to IMI/DL/BL lessons, ensuring team members are kept aware of all changes affecting IMI/DL/BL. Ensure validated DL/IMI is documented in course documents, e.g., Plan of Instruction.</td>
<td>Make corrections as needed throughout the validation phase. Ensure the project folder and all documentation are completed and copies provided to applicable personnel. Maintain a list of current IMI/DL/BL.</td>
</tr>
<tr>
<td>Review and validate the lesson according to established procedures.</td>
<td>Develop and maintain annual review procedures pertaining to IMI/DL/BL.</td>
<td></td>
</tr>
<tr>
<td>Review the lessons at least annually. Submit requests for changes as required. Inform ITU whether lesson should be retained, revised, or removed from inventory.</td>
<td>Complete or assist in completing revisions and documentation, as required. Determine if requested revision constitutes new development.</td>
<td></td>
</tr>
<tr>
<td>Course Supervisors/SMEs will:</td>
<td>Training Management/TDE will:</td>
<td>The Instructional Technology Unit (ITU)</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Squadron Commander/Date</td>
<td>Training Manager/Date</td>
<td>ITU Chief or CC/Date</td>
</tr>
</tbody>
</table>
Attachment 3

SAMPLE ELIMINATION SURVEY

Table A3.1. Sample Elimination Survey.

<table>
<thead>
<tr>
<th>NAME</th>
<th>COURSE</th>
<th>LOCATION</th>
<th>COMMAND</th>
</tr>
</thead>
</table>

Please help us improve this course. Select the top three problems that interfered most with your efforts to complete the course. Rate each problem area you experienced as 1 = most severe, 2 = next most severe, and 3 = least severe.

**Problem Rating.**

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course scheduling</td>
<td></td>
</tr>
<tr>
<td>Problems with onsite equipment</td>
<td></td>
</tr>
<tr>
<td>Conflicts with duty</td>
<td></td>
</tr>
<tr>
<td>Personal or family medical problems</td>
<td></td>
</tr>
<tr>
<td>Instruction was hard to follow or didn’t track well</td>
<td></td>
</tr>
<tr>
<td>Personal or family emergency</td>
<td></td>
</tr>
<tr>
<td>Permanent change of station</td>
<td></td>
</tr>
<tr>
<td>Extended temporary duty (TDY) or deployments</td>
<td></td>
</tr>
</tbody>
</table>

If other problems interfered with your course completion, please describe them:
INSTRUCTIONS TO SITE MONITOR: Collect student surveys and mail to:
Appropriate TRG ATTN:
939 Missile Rd
Sheppard AFB TX 76311-2337
Attachment 4

JUSTIFICATION OF UNDUE BURDEN TO SECTION 508 COMPLIANCE STAFF PACKAGE HEADINGS

Table A4.1. Documenting Undue Burden to Section 508 Compliance.

<table>
<thead>
<tr>
<th>SECTION 508 COMPLIANCE (UNDUE BURDEN DETERMINATION) STAFF PACKAGE HEADINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination: JA, DOD Section 508 Compliance Coordinator (AF Form 1768 may be used to obtain digital coordination signatures)</td>
</tr>
<tr>
<td>SUBJECT: 508 Compliance Undue Burden Determination for (add course(s) name/identifier(s) here)</td>
</tr>
<tr>
<td>COURSE(S) DESCRIPTION: Provide a standard course description and identify the target audience. Include any additional information to clarify the description of the course. Multiple courses may be grouped into one letter when it makes sense to do so.</td>
</tr>
<tr>
<td>BACKGROUND AND SUMMARY: Include when, why, etc. the course was developed, the products or services required, the market research performed to locate commercial items that meet the applicable standards, and the specific reason(s) why the technical provision cannot be met. Also provide information about future requirements to continue offering the course and an assessment of its value.</td>
</tr>
<tr>
<td>DATA ANALYSIS, DATA, AND FINDINGS: Provide information such as the dollar value of the course, applicable Section 508 Standards, challenges of compliance and significant difficulty, other applicable technical provisions that cannot be met, alternate means of access, and estimated date for corrections. Also include the costs and how they were estimated if monetary expense is deemed prohibitive.</td>
</tr>
</tbody>
</table>

Staff Package SIGNATURE BLOCK & SIGNATURE – ORG SENIOR LEADER