# BY ORDER OF THE COMMANDER AIR EDUCATION AND TRAINING COMMAND



# AIR EDUCATION AND TRAINING COMMAND INSTRUCTION 36-2621

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Personnel

## FLYING TRAINING COURSE PUBLICATIONS DEVELOPMENT

# **COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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

**RELEASABILITY:** There are no releasability restrictions on this publication.

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This instruction implements AFPD 36-26, Total Force Development. It prescribes requirements to develop formal flying training courses and associated materials using Instructional System Development (ISD). It contains responsibilities and procedures for planning, developing, and validating formal flying training systems, programs, or courses within AETC. It implements the principles of ISD as directed by AFI 36-2670, Total Force Development, and AFMAN 36-2235, Volume 8, Information for Designers of Instructional Systems Application to Aircrew Training. It establishes policy and guidance to assist personnel in using the ISD process to develop flying training syllabuses, courseware, and other training documents under the operational control of HQ AETC. It outlines the AETC flying training development process for agencies developing, or requesting development of, flying training syllabuses and courseware in AETC. This instruction applies to all AETC organizations and agencies involved in the development, management, support, administration, delivery, or evaluation of formal AETC flying training programs and flying training syllabuses and other special publications to include joint/international programs, Euro-NATO Joint Jet Pilot Training, Air National Guard, and Air Force Reserve Command. Submit suggested changes to this instruction on AF Form 847, Recommendation for Change of Publication, through command channels, to 19 AF/DOV. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) AFI 33-322, Records Management and Information Governance Program, and disposed of according to the Air Force Records Information Management System Records Disposition Schedule. References to

forms within this instruction also equate to electronic products when authorized. The authorities to waive requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver authority.

# SUMMARY OF CHANGES

**This document has been revised and must be completely reviewed.** Updated office symbols throughout the document. Updated numerous publication references.

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### **Chapter 1**

#### RESPONSIBILITIES

#### 1.1. Nineteenth Air Force Commander (19 AF/CC).

1.1.1. Executes operational-level command and control of all formal aircrew training missions, establishes policy, and provides directives and resources for the conduct of the formal aircrew training programs within AETC. Provides subject matter and ISD expertise for the development of flying training programs and syllabuses.

1.1.2. Approves new, revised, or changed AETC flying training syllabuses, "Small-Group Try-Out" and "Validation" syllabuses. This includes syllabuses applicable to both Air Force and Air National Guard formal training units. The National Guard Bureau Director of Operations approves Air National Guard-unique syllabuses. The Euro-NATO Joint Jet Pilot Training steering committee is approval authority for Euro-NATO Joint Jet Pilot Training undergraduate, pilot instructor training, introduction to fighter fundamentals and associated instructor pilot syllabuses with 19 AF/CC concurrence.

1.1.3. National Guard Bureau Director of Operations maintains approval and waiver authority for actions relating to flying training program issues of the Air National Guard IAW AETCI 36-2605 applicable volume.

1.1.4. The Air Force Reserve Command Director of Operations maintains approval and waiver authority for actions relating to flying training program issues for Air Force Reserve Command IAW AETCI 36-2605 applicable volume.

1.1.5. AETC, and AETC-gained Air Reserve Component wings, groups, and squadrons ensure implementation and delivery of flying training programs. Wings, groups, squadrons and units using AETC flying training syllabuses are the active, hands-on providers of AETC flying training directly to students. Commanders, instructors, staff, and students all have a responsibility for effective Air Force flying training and must be active in the feedback of information regarding the effectiveness of each syllabus and associated training.

**1.2. 19 AF Operations Directorate (19 AF/DO).** Establishes, certifies and directs resources for flying training policies and oversees syllabus development. Ensures execution of AETC formal syllabus training for all AETC and AETC-gained Air Reserve Component formal training units conducting graduate-level flying training.

**1.3. 19 AF Strategy, Transformation and Integration Directorate.** Responsible for development, validation, and acceptance of flying training courseware and maintains the Undergraduate Flying Training Briefing Room Interactive program.

**1.4. 19 AF Undergraduate Formal Training Division (19 AF/DOU).** Ensures coordination for Undergraduate Flying Training and associated graduate training. Provides management oversight for courseware development, training aids, contracted activities, simulators, and the AETC Aircrew Graduate Evaluation Program. Note: Guidance contained in this AETCI addressing "flying training" is applicable to, and includes United States Air Force Academy Airmanship programs.

1.4.1. Responsible for the development, validation, certification, production and coordination of undergraduate and associated graduate flying training programs and syllabuses. Approves

administrative changes to syllabuses. Refer to applicable AETCI 36-2605 volume for specific program exceptions and responsibilities.

1.4.2. Determines the functional office of primary responsibility (OPR) and point of contact (POC) for certain flying training syllabuses. The OPR and POC are the focal point for gathering syllabus feedback and suggestions, coordinates all syllabus revisions and changes and submitting revisions for approval.

**1.5. 19 AF Graduate Formal Training Division (19 AF/DOG).** Ensures coordination for Graduate Flying Training; Survival, Evasion, Resistance, and Escape Training; Battle Management Training, which includes Undergraduate Air Battle Manager, Weapons Director, and associated Initial Qualification Training syllabuses; AETC Intelligence Formal Training Unit; Career Enlisted Aviator Training; Helicopter undergraduate flying training; Remotely Piloted Aircraft undergraduate flying training; and provides management oversight of several contracted Aircrew Training System programs.

1.5.1. Responsible for the development, validation, certification, production and coordination of graduate and associated graduate flying training programs and syllabuses except for lead command or contractor developed syllabuses. Approves administrative changes to syllabuses. Refer to applicable AETCI 36-2605 volume for specific program exceptions and responsibilities.

1.5.2. Determines the functional OPR and POC for certain flying training syllabuses. The OPR and POC are the focal point for gathering syllabus feedback and suggestions, coordinates all syllabus revisions and changes and submitting revisions for approval.

1.5.3. Responsible for the development, validation, and acceptance of graduate and certain undergraduate flying training courseware (all programs listed in paragraph 1.4 are considered, for the purposes of this instruction, as flying training programs) except for lead command or contractor developed courseware.

**1.6. 19 AF Aircrew Performance Division (19 AF/DOA).** AETC/19 AF is Lead Command for the Air Force-wide Aerospace Physiology Training program. 19 AF/DOA serves as POC and certifying authority for Aerospace Physiology policy, guidance, and courseware and serves as manager for Aerospace Physiology training devices. **Note**: Guidance contained in this instruction addressing "flying training" is applicable to, and includes Aerospace Physiology training within AETC.

**1.7. AETC/A3Q, Special Missions Division.** Is the coordinating and certifying authority for non-USAF aircraft flying training.

1.7.1. Develops flying training programs and associated syllabuses for non-USAF aircraft in coordination with training providers (i.e. contractors, sister services and other government agencies), then validates and certifies the syllabus.

1.7.2. Serves as functional OPR for certain syllabuses including providing the POC for each applicable syllabus. The OPR and POC are the focal point for gathering syllabus feedback and suggestions, coordinates all syllabus revisions and changes and submitting revisions for approval.

**1.8. AETC/A5Q, Acquisition Division.** Provides oversight and program management of the Training Integration Management System and Graduate Training Integration Management System

or a follow-on enterprise Training Management System in response to user requirements defined by HQ AETC functional managers. For detailed information regarding these and other AETC/A5Q responsibilities, see AETCI 36-2605V1, *Formal Flying Training Administration and Management*."

**1.9. AETC/A5X, Strategy and Requirements Division.** In coordination with 19 AF Flying Training Analysis, reviews proposed acquisition or modification programs to ensure personnel use ISD (to include media and cost benefit analysis) to decide the mix, quantity, and sophistication of training equipment and use of technology to deliver productive and cost effective training.

1.9.1. Along with 19 AF Flying Training Analysis, ensures the use of the Planning, Programming, Budgeting, and Execution system to identify resources (instructors, aircraft, simulators, etc.) and required funding support.

1.9.2. For new mission aircraft, reviews proposed acquisition or modification programs to ensure personnel use ISD (to include media and cost benefit analysis) to decide the mix, quantity, and sophistication of training equipment and use of technology to deliver productive and cost effective training.

#### Chapter 2

#### SYLLABUS DEVELOPMENT

#### 2.1. Flying training publications.

2.1.1. Information contained in flying training publications is identified as "controlled unclassified information" due to MDS technical and operational content. This creates the requirement for the distribution and releasability statements found in front of the publications. Caution must be used regarding the release of data.

2.1.2. Organizations may receive unsolicited requests for syllabuses, lesson plans, or other courseware documents. Requests from a contractor, who is not on contract with AETC or the Air Force to support the training program in question, will require a staff legal review before a response can be generated (**T-2**).

2.1.3. In making a releasability determination, it is AETC policy that requestors provide information necessary to make an appropriate decision. This should include, as appropriate, an approved DD Form 2345, *Militarily Critical Technical Data Agreement*, contract number(s), request for proposal or request for information data, desired information, or sponsoring Department of Defense activity information. In some cases, approved non-disclosure agreements may be required.

**2.2. Flying Training Syllabus Development.** The AETC syllabus is the primary flying training course control document. It is a tool for the "Management" system function of the ISD model, and is a resultant product of the analysis and design phases of ISD. Syllabus structure and flow must contain the basic elements outlined in this instruction. Do not use copyrighted material unless a release is obtained from the copyright owner.

2.2.1. **Order of Precedence.** A syllabus is directive in terms of the administration, delivery, and evaluation system functions (see the appropriate volume of AFH 36-2235 for definitions of these terms). Formal flying training course syllabuses must be followed unless a waiver request is approved per the process stated in the syllabus. If a conflict is discovered between a syllabus and a directive publication (for example an AFI or AETCI), the directive publication takes precedence; notify the syllabus OPR of any conflict. An AETC flying training syllabus may be more restrictive than a directive publication, but it cannot be less restrictive.

2.2.2. **Syllabus Organization.** Develop flying training courses as required by each training system. A syllabus identifies flying training courses that are divided into phases, categories, modules or units of instruction. Training courses may be tracked/divided or further specialized within a position or crew specialty, and consequently within a syllabus. When programs or courses are divided as such, the syllabus must explain and identify them. Furthermore, one flying training program or course may consist of more than one syllabus per specialty or crew position.

2.2.2.1. **Syllabus Format.** Preparing flying training syllabuses, or flying training related courses such as Survival, Evasion, Resistance, and Escape, is a coordinated effort between program managers and supervisors to ensure technical accuracy and sound instructional procedures. When not addressed elsewhere (i.e., an AETCI 36-2605 Volume), define syllabus controls, waivers, and deviations. Include procedures, necessary actions and approval chain for waivers and deviations.

2.2.2.1.1. Designate syllabuses with an alpha-numeric identifier. 19 AF Flying Training Analysis determines the course identifier for undergraduate training and some graduate as applicable.

2.2.2.1.2. Syllabus page numbering format: The cover and purpose page have no page numbers. Reference Attachment 3, Table 3.1, Items 3 and 4 for subsequent numbering. Each chapter begins at the top of a new page, regardless of whether it is odd or even. Page number and content font will be Times New Roman, 10-point. In addition, page numbers will be bold. Blank pages will not be used. Page headers are optional but if used will be in bold font.

2.2.2.1.3. See Attachment 3, Table 3.1, for a listing of required syllabus items.

2.2.2.2. **Syllabus Prerequisites.** A syllabus is the source document for course prerequisites and prescribes the overall course instruction, gives special instructions, and lists each training event in the curriculum. In cases where other directives provide prerequisites, all prerequisites apply. Syllabus OPRs clarify prerequisite requirements.

2.2.3. Additional Syllabus Content. As a management tool, flying training syllabuses may include training events addressing other issues such as leadership training (when directed), physical fitness requirements (compliance with USAF or appropriate standards), ancillary training (when necessary), medical and physiological requirements (as appropriate for the flying training), record keeping requirements (AETC standards), student evaluation (grading), and administration and orientation (training support), or security clearances. Furthermore, a syllabus (when required) addresses student status such as regular Air Force, Air Reserve Component, cadet or international students. Depending upon the particular course and how training is to be conducted, the syllabus shall address each of these issues. Either alternate tracks within one syllabus or multiple syllabuses for a program may be used to accommodate these differences.

2.2.4. **Course Training Standards (CTS).** Flying training courses are based upon CTS. Each AETC flying training syllabus outlines the training required to achieve the proficiency specified in the CTS. AETC flying training CTS items follow a Criterion Referenced Objective format.

2.2.4.1. CTS describe the standards each student must achieve prior to completing the formal course. These standards must be clearly understood by training faculty and staff, students, and by other Major Command (MAJCOM) personnel.

2.2.4.2. CTS provide the basis for syllabus development, courseware production, training objectives, training evaluation, and student grading. CTS are not required for courses that are "experiential" in nature (observable and measureable performances not appropriate), such as Aircrew Survival training programs and others that consist of "be familiar with" experiences.

2.2.4.3. CTS must clearly state what the graduate must be able to do, under what conditions, and to what level of performance. The CTS format will consist of a stated performance, condition, and a measurable (to the extent that is possible) clearly and concisely worded standard. Numerical required proficiency levels are not sufficient substitutes for clearly stated AETC syllabus CTS.

2.2.4.4. In cases where the condition or standard remains the same for several CTS items or where it is clearly understood, it need not be listed for each performance. Stating or describing a condition or standard in the preceding paragraph is sufficient. For example, "as a crew member" or "in the aircraft or simulator" would be conditions for a number of performances. However, unique or special conditions, or conditions requiring certain equipment or using specific information must be listed.

2.2.4.5. Standards referenced to other documents or publications, written as "in accordance with" other guidance or directives, is acceptable when necessary. While specific citations are preferred, "applicable directives" is acceptable when multiple directives are being referenced. It is not acceptable when there is a clear document to reference. AFI 11-2MDS-Specific standards are acceptable and may be directly referenced as CTS in a syllabus, however, syllabus OPRs are responsible for ensuring such standards can be correctly gleaned from referenced documents. Deferring standards to sources outside OPR control might result in a standard being changed and implemented before the syllabus, courseware, resources, or training can be adjusted or changed to train the new standard.

2.2.4.6. Each flying training course (and syllabus) normally has its own CTS. However, with adequate justification, syllabus OPR agreement, and Lead Command coordination, CTS may exist as a separate course document (not included within a syllabus). This might be done, for example, when several syllabuses use the same CTS.

2.2.4.7. CTS for Career Enlisted Aviator, Basic Sensor Operator Course, and Survival, Evasion, Resistance, and Escape Specialist syllabuses may be drawn from the Career Field Education and Training Plan Specialty Training Standards for the particular career field. However, instructions in the preceding paragraphs apply.

2.2.4.8. In case of a CTS conflict between an AETC syllabus and an MDS-specific publication, the MDS publication takes precedence over an AETC syllabus. However, when a syllabus CTS is more restrictive, the syllabus CTS will stand.

2.2.5. **Student Evaluation.** Student evaluations must be addressed in AETC flying training syllabuses.

2.2.5.1. Syllabus developers and POCs must be knowledgeable of AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program* and AFI 11-2 MDS-Specific, Volumes—*Aircrew Evaluation Criteria*. Instructors, evaluators, and students must clearly understand student grading policy and procedures.

2.2.5.2. The syllabus, or AETCI 36-2605 Volume, must clearly explain how student performance is evaluated throughout the course of training. Evaluation subjects must be clearly explained in each syllabus, reference AFI 11-2 MDS-Specific Volume 2 (or similar authoritative MAJCOM or AF-level document), or AETCI 36-2605 Volume, as necessary.

#### 2.2.6. Syllabus coordination and approval.

2.2.6.1. Coordination is necessary for any applicable syllabus with the National Guard Bureau, Air Force Reserve Command, Air Force Security Assistance Training Squadron, another MAJCOM or direct reporting unit. Syllabus OPRs determine required coordination agencies. Coordination may be necessary with the National Guard Bureau,

Air Force Reserve Command, Air Force Security Assistance Training Squadron, another MAJCOM or direct reporting unit. Coordinate each syllabus within HQ AETC (and other MAJCOM/Direct Reporting Units, as required) staff agencies for planning and resourcing, with courseware development staff, and organizations responsible for implementation (Wing, Group, training squadron, etc.) of the flying training system or program.

2.2.6.2. Regardless of the source, AETC units must coordinate all proposed changes to training and syllabuses with the 19 AF OPR before incorporating them into the training program or syllabus (**T-2**). Units will advise 19 AF syllabus OPRs of pertinent discussions with other MAJCOMs regarding proposed changes to training and syllabuses (**T-2**). OPRs will ensure resource and policy implications are addressed. Syllabuses developed by local units and subsequently forwarded to the OPR should undergo local coordination. The final product is prepared by the OPR for HQ-level coordination. Following formal coordination, the syllabus will be approved by 19 AF. An AF Form 673 is not required for approval but documentation of the approval process will use AETC Task Management Tool (**T-2**).

2.2.6.3. Since the syllabus is a source document for the Training Management System, new and changed syllabuses should be coordinated with Training Management System (Training Integration Management System, Graduate Training Integration Management System, etc.) personnel so that Training Management System changes are planned and system alterations anticipated.

### 2.2.7. Contractor-Developed Syllabuses.

2.2.7.1. Unless otherwise required by contract, contractors responsible for AETC flying training syllabus development will follow this instruction (**T-2**).

2.2.7.2. For contracted Aircrew Training System flying training, the contractor develops, updates, and maintains courseware and training syllabuses and performs task and media analysis associated with aircrew qualification training per AFI 16-1007, *Management of Air Force Operational Training Systems*, consistent with the applicable Aircrew Training System contract (see applicable AFI 11-2 MDS-Specific, Volume 1).

2.2.7.3. Contractors are obligated by covenants of the particular contract which take precedence over this instruction. However, since the acquisition process may result in contractors providing any level of products or services from mission design series (MDS) hardware with a total training system, to instructor, administrative, or courseware services, contractors involved with AETC flying training have responsibilities regarding the development of AETC flying training programs and the resulting syllabuses and associated courseware production. As such, the ISD mandate of AFPD 36-26 applies.

2.2.7.4. If a conflict exists between this instruction and an existing contract, the contract takes precedence. Contracts developed and executed after the implementation date of this instruction will include a requirement to follow the provisions of this instruction; to the extent they are applicable to performance of the contract.

2.2.7.5. The syllabus OPR is at 19 AF except for Air Adviser training which resides with AETC/A3Q. Contractor-developed syllabuses will be sent to the OPR for further action, coordination, and eventual approval.

# 2.2.8. Additional Syllabus Requirements.

2.2.8.1. Syllabuses must be reviewed and documented as current or revised within a 4 year cycle. Explain syllabus management functions and identify planned review dates by month and year. Document all syllabus reviews. If a syllabus is changed as a result of a review, the updated syllabus is the documentation. Syllabus review documentation will be standardized by division.

2.2.8.2. The appropriate 19 AF division chief approves redacted syllabuses.

2.2.8.3. Directorate of International Training and Education and the Air Force Security Assistance Training Squadron coordinate on international flying training with applicable 19 AF divisions and Foreign Disclosure Offices, as necessary.

2.2.8.4. AETC Flying Training Special Publications Website (AETC Bookstore). The website, <u>https://trss3.randolph.af.mil/Bookstore/home/homePage.aspx</u>, contains current versions of syllabuses, courseware (as applicable), current status and the history of changes to courseware, and a link to access courseware change requests. Only authorized division personnel may upload syllabuses to the bookstore.

2.2.8.5. Education and Training Course Announcements (ETCA). Flying training program managers must ensure information for AETC flying training courses listed in ETCA is correct and up-to-date.

2.2.8.5.1. The website, <u>https://cs2.eis.af.mil/sites/app10-etca/SitePages/home.aspx</u>, includes specific information for formal flying training courses conducted or managed by 19 AF. 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.

2.2.8.5.2. The 19 AF flying training division responsible for a flying training syllabus identifies ETCA maintainers (syllabus managers, POCs, or other appointed personnel) to maintain current, correct, updated course and general information of the ETCA Website. **Note:** AFPC updates the ADSC information in ETCA for AETC flying training courses IAW AFI 36-2107, *Active Duty Service Commitments (ADSC)*.

2.2.8.5.3. ETCA maintainers review and update course announcements annually. Whether or not announcement changes are required, ETCA maintainers must update the "Date Updated" field and check the "update" button so that the "last changed" date is updated. ETCA maintainers also use the ETCA software user manual and procedures on the ETCA Website to initiate, maintain, and remove course announcements.

**2.3.** Syllabus Revision and Change. A syllabus revision is a rewrite with a new cover date that supersedes and replaces the previous version. A syllabus change limits revised material and maintains the cover date.

2.3.1. Syllabus revisions are major modifications, affecting subject matter, instructional design, duration, course flow, courseware and/or media and often revise a majority of the syllabus. They involve full edit and reviews. In most cases, syllabus release is planned/timed to be used beginning on a specific date or with a specific class.

2.3.2. Syllabus changes, referred to as either a Change or Interim Change, do not require a full review and use a specific change identification number (e.g. IC-1, IC-2, C-1, C-2, etc.).

2.3.2.1. Use a Change Transmittal Page that includes instructions for posting the change, a summary of the changes (normally a separate page from the Change Transmittal Page), and the new content pages to be inserted. Reference **Attachment 2**, **Figure 2.1** for an example. In the summary of changes, syllabus OPRs may provide more specific lesson/module information when listing the revisions to the syllabus or related flying training material, i.e. courseware, study guides, etc.

2.3.2.2. After the change is posted, file the Change Transmittal Page and the summary of changes page at the end of the original document. For documents with more than one change, file all the Change Transmittal Pages and summary of changes at the back of the original document with the most recent first. Indicate changed material with stars and/or bars.

2.3.3. Administrative changes do not affect the subject matter content, authority, purpose, application, and/or implementation of the publication. Since these types of changes are non-substantive, no coordination is required. Only OPRs may initiate and implement these changes to their publications. Use a Change Transmittal Page IAW paragraph 2.2.2.1

2.3.4. For all flying training courses authorized foreign student attendance, the 19 AF flying training division responsible for a syllabus change, revision, or review will coordinate with the AETC Foreign Disclosure Division for a foreign disclosure review when new material is added to the course.

#### Chapter 3

#### **COURSEWARE**

**3.1. Types of Products.** Courseware includes all instructional/training material, print or electronic, including technical data, software products, textual materials, audio tapes, slides, movies, video tapes, video discs, and other audiovisual materials. It includes student guides, instructor guides, training manuals, examinations, supporting materials for simulator or trainer missions, guidebooks, and Interactive Courseware. It may include computer simulations, part-task trainers, and desktop training devices and associated supporting materials. The purpose of courseware is to support flying training by providing instructors and students the materials necessary to complete training. AETC government agencies and contractors preparing courseware should follow prepared style guidance (see AETC Flying Training Special Publications web page, Aircrew Training program (not necessarily command-wide). However, effective and efficient delivery of training remains paramount.

#### 3.2. Development Style Guidance.

3.2.1. A variety of styles and formats are used for flying training courseware products within AETC flying training programs. As an aid to courseware production and standardization, guidelines and templates are on-line.

3.2.2. Publication guidelines and templates are available on the AETC Flying Training Specials Publications Website ("electronic bookstore"). From "General Publications," access either "Publications Guide" or "Publications Template." The "Pubs Guide" page provides access to the AETC Handout on special publications. Courseware is password protected on this site. Graduate flying training courseware is MDS specific and will be standardized within that MDS.

### Chapter 4

# INTERNATIONAL FLYING TRAINING PUBLICATIONS

#### 4.1. Syllabus Management.

4.1.1. AETC international flying training syllabuses, as considered here, are dedicated to training international students only. This does not address other AETC flying training attended by international students.

4.1.2. Air Force Security Assistance Training Squadron POCs coordinate with 19 AF syllabus experts to develop international flying training syllabuses. Also coordinate syllabuses (and courseware) intended for international student use through the Directorate of International Training and Education. Define all waiver and deviation procedures in each syllabus.

4.1.3. International students must meet established course entry prerequisites listed in the syllabus. The Air Force Security Assistance Training Squadron program manager obtains the student records (or equivalent) prior to any formal training for verification. If required, 19 AF flying training divisions determine requisite equivalency. If additional training is required to meet prerequisites, establish a training plan approved by 19 AF flying training divisions prior to placing the student against a training quota unless attendance at another formal course is required.

CRAIG D. WILLS, Major General, USAF Commander

# Attachment 1

### **GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

#### References

AFPD 10-9, Lead Command Designation and Responsibilities for Weapons Systems, 8 March 2007

AFPD 36-26, Total Force Development, 18 March 2019

AFI 11-202V2, Aircrew Standardization/Evaluation Program, 6 December 2018

AFI 16-1007, Management of Air Force Operational Training Systems, 1 October 2019

AFI 33-360, Publications and Forms Management, 1 December 2015

AFI 36-2107, Active Duty Service Commitments (ADSC), 22 October 2018

AFI 36-2670, Total Force Development, 25 June 2020

AFI 65-503, US Air Force Cost and Planning Factors, 13 July 2018

AFH 36-2235, Volume 8, Information for Designers of Instructional Systems Application to Aircrew Training, 1 November 2002

AFMAN 33-322, Records Management and Information Governance Program, 23 March 2020

AETCI 36-2605, Volume 1, Formal Flying Training Administration and Management, 17 September 2019

### **Prescribed Forms**

None.

### **Adopted Forms**

DD Form 2345, *Militarily Critical Technical Data Agreement* AF Form 679, *Air Force Publication Compliance Item Waiver Request/Approval* AF Form 847, *Recommendation for Change of Publication* AF Form 1256, *Certificate of Training* AETC Form 6, *Waiver Request* 

### Abbreviations and Acronyms

AETC—Air Education and Training Command

**AFI**—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

**CTS**—Course Training Standards

ETCA—Education and Training Course Announcements

IAW—In Accordance With

ISD—Instructional System Development

MAJCOM—Major Command

MDS—Mission Design Series

**OPR**—Office of Primary Responsibility

POC—Point of Contact

# Terms

Administrative Change—Change that does not affect the subject matter content, authority, purpose, application, and/or implementation of the publication (e.g., changing the POC name, office symbol(s), fixing misspellings, etc.)

Aircrew—The total complement of rated (pilot, navigator, Combat Systems Officer, Air Battle Manager, and flight surgeon), Career Enlisted Aviator (1AXXX and 1UXXX Air Force Specialty Codes), and nonrated aircrew (K-, Q-, or X-prefixed Air Force Specialty Code) personnel responsible for the safe ground and flight operation of the aircraft and onboard systems, or for airborne duties essential to accomplishment of the aircraft's mission. Includes members in initial formal training for immediate assignment to an authorized operational flying position. Individuals must be on aeronautical orders and assigned to an authorized position according to AFI 65-503, US Air Force Cost and Planning Factors, or nonrated aircrew not in an aircraft's basic crew complement, but required for the mission. Aircrew members perform their principal duties inflight and their presence is required for the aircraft to accomplish its primary tasked mission. Duties must be essential to operating the aircraft or mission systems and equipment used for completing a mission, or other duties essential to the aircraft's mission. Note: United States Air Force Academy/Air Force Reserve Officer Training Corps cadets enrolled in approved United States Air Force Academy flying programs are accorded aircrew status while actively participating in such programs. Cadets are placed on aeronautical orders authorizing flying status while participating in approved United States Air Force Academy flying programs and will not be added in the operational Aviation Resource Management System database. Host Aviation Resource Management personnel will not assign an Aviation Service Code and an Aviation Service Date will not be established. Flying incentive pay or flying duty credit is not authorized.

**Aircrew Graduate Evaluation Program**—Provides training program managers and senior leaders with a comprehensive assessment of training effectiveness and areas of improvement.

**Aircrew Training Device**—Training devices used to prepare aircrew members for the actual performance of flight duties. Examples include, but are not limited to, simulators, cockpit familiarization trainers, cockpit procedures trainers, unit training devices, operational flight trainers, part-task trainer, weapon system trainers, and desktop trainers.

Block—A major component of a course.

Briefing Room Interactive—Computer application used for aircrew briefings and mission planning.

Career Enlisted Aviator—Personnel in AFSCs 1AXXX and 1UXXX.

**Career Field Education and Training Plan**—A comprehensive core training document that identifies: life-cycle education and training requirements; training support resources, and minimum core task requirements for a specialty. The plan aims to give personnel a clear path and instill a sense of industry in career field training.

**Category**—Simulator and aircraft training of a particular type; such as qualification, transition, instruments, formation, low-level navigation.

**Command and Control Operations Training**—Includes Undergraduate Air Battle Manager, Weapons Director, and other Command/Reporting Center weapons system associated training.

**Computer Based Training**—Training in which computers are used for training development, delivery, evaluation, and training management. The management functions often include scheduling, lesson selection, score keeping, and quality of student responses. See Interactive Courseware.

**Course**—The entire program of academic training, ground training, simulators and aircraft conducted in all media during the programmed training days as directed in a syllabus.

**Course Training Standards**—The performance, conditions and standards describing skills and proficiency levels required for students to complete a course.

**Courseware**—The technical data, textual materials, audio, video, film, computer instruction, instructor/student guides, and other training material developed to support and implement the syllabus.

**Education and Training Course Announcement**—Contains specific MAJCOM procedures, fund cite instructions, reporting instructions, and listings for those formal courses conducted or managed by MAJCOMs or field operating agencies. The ETCA contains courses conducted or administered by USAF and reserve forces and serves as a reference for the AF, DoD, other military services, government agencies, and security assistance programs.

Flying Training Publications—Syllabuses and courseware.

**Graduate Flying Training**—Follow-on formal flying training accomplished after completing undergraduate flying training.

Group Commander—Refers to Operations Group, Fighter Group, or Flying Training Group commanders.

**Instructional System Development**—A deliberate and orderly process for planning and developing instructional programs that make sure personnel are taught the knowledge, skills, and experience essential for successful job performance. Depends on a description and analysis of the tasks necessary for performing the job, objectives, and tests clearly stated before instruction begins evaluation procedures to determine whether or not the objectives have been reached, and methods for revising the process based on empirical data. (See AFI 36-2670)

**Interactive Courseware**—Computer controlled courseware that relies on trainee input to determine the pace, sequence, and content of training delivery using more than one type medium to convey the content of instruction. It can link a combination of media, to include but not be limited to; programmed instruction, videotapes, slides, film, television, text, graphics, digital audio, animation, and up to full motion video, to enhance the learning process and may also be referred to as Computer Based Instruction and Computer Based Training.

**Interactive Multimedia Instruction**—A term applied to a group of predominantly interactive, electronically-delivered training and training support products. Products include instructional software and software management tools used in support of instructional programs and can be presented as a stand-alone, self-paced program, an instructor-led presentation, or a program to support on-the-job training or personal performance enhancement.

**Maneuver Item File**—Table listing all maneuvers, and the proficiency required in each maneuver, for all categories in a course.

Mission Design Series—System by which military aerospace vehicles are identified.

**Phase**—A major component of a course. For example, undergraduate pilot training consists of three phases: preflight, primary, and advanced.

**Proficiency Advancement**—Training management tool which allows a student to progress or complete a unit, module, block, or phase of training without completing every sortie or mission. The designated representative may proficiency advance a student when the student demonstrates performance to the CTS. When exercising this option, the designated representative will document the proficiency advancement in the Training Management System gradebook. Proficiency advancement will not be used as a management tool for the purpose of graduating students by a specific date or to save or redirect resources.

**Regression**—A student is said to have regressed when, following achieving a proficient grade for a maneuver or graded training behavior, the student is graded at an unsatisfactory level of performance or below the previously required proficiency level. Treatment of student regression is addressed in a syllabus.

**Revision**—A publication that supersedes its previous version. The revised publication has a new date and includes a statement on the purpose page under the supersession line. For example, "Supersedes AETC Syllabus P-V4A-A, July 2009." A revision automatically supersedes all changes to the previous edition, unless otherwise stated.

**Simulator**—A training device that permits development and practice of the necessary skills for accomplishing operational tasks, to a prescribed standard of competency, in a specific prime mission system and duty position.

**Subject**—In academic training, the first two letters of the designator identify the subject (*Example:* AA0401 is in applied aerodynamics.)

**Training Medium**—A type of instructional device or presentation method. Examples of media include, but are not limited to, Computer Based Training or Computer-Assisted Instruction, Instructor-Based Training, Mediated Interactive Lecture, student or instructor guides, lectures, aircrew training device and aircraft.

**Training System**—A systematically developed curriculum including, but not necessarily limited to, courseware, classroom aids, training simulators and devices, operational equipment, embedded training capability, and personnel to operate, maintain, or employ a system. The Training System includes all necessary elements of logistic support.

Undergraduate Flying Training—Includes Specialized Undergraduate Pilot Training, Euro-NATO Joint Jet Pilot Training, Air Battle Manager, Combat Systems Officer, Undergraduate Remotely Piloted Aircraft Training, Basic Sensor Operator Course, Career Enlisted Aviator Rotary-Wing, Initial Flight Screening, and United States Air Force Academy Airmanship programs.

**Unit**—A group of simulator or aircraft lessons in a given category. The first two numbers in the designator identify the unit. For example, T8101 is in the T8100 unit.

**Using Command**—Any Command or organization that possesses a prime weapon system and uses the products of the Training System. Reference AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, for further guidance on the delineation of responsibilities for Lead and Using Commands.

**Validate**—The process of assessing the effectiveness of training, a syllabus, or courseware as it is being developed with the intention of improving the training product. It uses repetitive cycles of development, tryouts, and revisions until evidence shows that the training is effective.

# Attachment 2

## SAMPLE CHANGE TRANSMITTAL PAGE

### Figure A2.1. Sample Change Transmittal Page.

DEPARTMENT OF THE AIR FORCE Change 1 Headquarters Air Education and Training Command JBSA-Randolph TX 78150-4404 April 2017

Change AETC Syllabus F16C0B00PL, Oct 2014, as follows:

1. Page-Insert Changes -- A vertical bar (J) indicates new or revised material.

Remove	Date	Insert	Date
Cover	Oct 14	Cover (AC 16-1)	Jan 16
Purpose	Oct 14	Purpose (AC 16-1)	Jan 16
2	Oct 14	2 (AC 16-1)	Jan 16
4-7	Oct 14	4 (AC 16-1) - 7 (AC 16-1)	Jan 16

2. Filing -- After posting the Change, file this page at the end of the syllabus.

OFFICIAL TY A. BUMPTAFRANCE, Colonel, USAF Chief, Graduate Flying Training Division Directorate of Intelligence, Operations, and Nuclear Integration

### SUMMARY OF CHANGES

- 1. Administrative edits; format updates.
- 2. Next planned revision January 2018.
- 3. All references to AETCI 36-2605 may also refer to AETCI 36-2205 until rescinded.

#### Pages: 7

Accessibility: A .pdf file is available on the "AETC Flying Training Special Publications" website. Distribution: Authorized to Department of Defense and U.S. companies under DoD contract for this course only.

Releasability: Access to this publication is restricted. Refer other requests for this document to the OPR.

# Attachment 3

# **REQUIRED FLYING TRAINING SYLLABUS ITEMS TABLE**

# Table A3.1. Required Flying Training Syllabus Items Table.

Ι	А	В
t		Required Information For All Flying Training Syllabuses
e m	Location	Paragraphs listed here should be included in each syllabus. When they do not apply, the paragraph may be omitted. When another document addresses the subject, provide specific reference to that document. Additional paragraphs, tables, worksheets and sections may be added to clarify or enhance the syllabus.
1	Cover	Course identifier, title, and effective date.
	Purpose Page	Course identifier, effective date, purpose statement, approving authority signature block, OPR, and certifying authority. Also include the following statements:
		Accessibility: A .pdf file is available on the "AETC Flying Training Special Publications" Website.
		Distribution: Authorized to Department of Defense and U.S. companies under DoD contract for this course only.
		Releasability: Access to this publication is restricted. Refer requests for this document to the OPR.
	Table of Contents	Insert/update a table of contents and number using lower case Roman Numerals (i.e. "i", ii, iii) and continue numbering style until Chapter 1.
	Summary of Changes	Insert immediately after the table of contents. List the significant differences since the superseded version. If authoring a new syllabus, there is no summary of changes. Utilize lower case Roman Numerals continuing from the table of contents.
5	Chapter 1	<b>Course Description.</b> Include Title, Identifier, Objective, Location, Duration, Entry Prerequisite(s) [unless listed in additional chapters], Status Upon Graduation (If applicable, include a statement that graduates are awarded an AF Form 1256, <i>Certificate of Training</i> ), and Summary. Use tables to summarize academic, ground, simulator, and flying training. "1" is the page number. Additional paragraphs as required.
6	Chapter 2	<b>Course Administration.</b> Include the following sections and paragraphs (as applicable). Paragraph text may vary from here:
		Section A—Syllabus Management.
		1. Syllabus Interpretation.
		This syllabus is directive and must be followed as written. If no clear syllabus guidance exists, resolve the situation using the appropriate chain of command. If the logical course of action appears to conflict with other directives, contact the 19 AF OPR, DSN 487-XXXX.

# 2. Syllabus Waiver.

An approved syllabus waiver is required for any *planned* exception to the syllabus caused by special or unusual circumstances. Permanent or blanket waivers are *not* authorized, but should be suggested as syllabus changes. Do not accomplish or omit any training requested in a waiver until notification of approval. Maintain a permanent record of all approved waivers in the student's training folder. Submit waiver requests electronically or in writing, on AETC Form 6, *Waiver Request*, to the following approval authorities:

a. Provide the office symbols that approve/deny waiver requests for the specific syllabus. Forward the final outcome to the OPR.

b. For senior officer syllabus and entry prerequisite waivers, provide the office symbols that approve/deny waiver requests for the specific syllabus. Forward the final outcome to the OPR.

# **3.** Syllabus Deviation and Omitted Training.

A syllabus deviation is any *unplanned* variation from syllabus requirements such as prerequisite flow, turn times, and failure to comply with syllabus directives or requirements. Document *all* syllabus deviations in the student's training folder. If a syllabus deviation results in omission of required training, the Group Commander determines if the omitted training can be accomplished later in the syllabus flow without adversely affecting the quality of student training. Document Group Commander-directed corrective actions and accomplishment of the omitted training in the student's training folder.

4. Additional information as required.

Section B—Training Management.

**1. Fuel Conservation.** (adjust to be MDS-specific as necessary)

AETC is committed to fuel conservation and maximizing training value for the command's energy resource investment without compromising safety, air discipline, or negatively affecting the quality of our flying training product. Aircrews must manage aviation fuel as a limited and costly resource. Consider fuel optimization throughout all phases of mission planning and syllabus execution. Ensure ground operations (engine start times/taxi routing) and flight profiles are optimized for efficient fuel use. Adhere closely to syllabus average mission durations. Do not exceed these flight times except for extenuating circumstances or to meet training objectives.

**2. Voluntary Disenrollment/Drop on Request**. (add paragraph as required for the type of training) USAF Rated officers and Career Enlisted Aviators who attempt to voluntarily disenroll from this course are processed IAW AFMAN 11-402, *Aviation Resource Management*, as supplemented. Non-rated personnel who attempt to Drop on Request are processed IAW guidance found in the syllabus, AETCI 36-2605 applicable volume, or applicable AFIs.

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		IAW the applicable volume(s) of AETCI 36-2605, include additional, applicable paragraphs, such as: Flight Commander/Flight Leader Responsibilities, Training Requirements and Restrictions, Additional Training Sorties, Medical Procedures, Flying Safety, Emergency Procedures Training, Briefing Requirements, Training Accomplishment, Instructor Continuity, Regression Rules, Fair/Unsatisfactory Performance, Category Check/Progress Check/Elimination Check Guidance, Proficiency Advancement, Commander's Review Process Flowchart, Solo Restrictions, Minimum Scheduled Student Turn-Times, Simulator Requirements, Increased G-Awareness, Physical Fitness Requirements, Managing International Students, Commander's Review Process/Training Review Board, Cockpit/Crew Resource Management. Direct reference to 36-2605 Volume is acceptable.
		Section C—Grading Procedures.
		IAW the applicable volume(s) of AETCI 36-2605, define grading criteria in paragraphs, such as: Assessing Student Performance, Absolute Rating Scale, Relative Grading Scale, Maneuver Item File, Solo Flight Grading Procedures, Incomplete Sorties. Follow the grading standards. Direct reference to 36-2605 Volume is acceptable.
		Section D—Course Training Standards (CTS).
		CTSs must define the performance, conditions, and standards required for each listed task. To graduate, students must meet each syllabus-directed CTS at the required proficiency level. Direct reference to evaluation criteria from AFI 11-2MDS-specific Volumes 2 as an AETC standard is authorized if not otherwise specifically defined in the syllabus. Outline CTS in a table describing performance, condition, and standards for each task. If all conditions or standards are identical, define the conditions in the "Tasks" paragraph. CTS may be a stand-alone document, if so, state as reference and refer to the location.
		Additional sections or paragraphs as required for content and flow. Course maps, if used exclusively for schedule flow and prerequisite tracking, may be added here.
7	Chapter 3	Academic Training. List all academic subjects and the lessons in a table. As a "minimum" each lesson will have an identifier, title, and duration. Additional amplifying information may be added. Provide a row to show the total duration for each subject and the overall academic training total. Coordinate closely with the academic courseware authors to ensure accuracy of the data. Training devices which are considered academic training may be added in this chapter.
8	Chapter 4	<b>Flying/Mission/Simulator Training.</b> If desired, divide the chapter into sections for each category in the course. Detail the ground training, simulator, and/or aircraft events required. Include Maneuver Item File tables (if applicable) to specify the required proficiency level for each maneuver in every category, phase, or module.
	Additional Chapters	Additional Chapters. Chapters, sections and paragraphs may be added to clarify or enhance the syllabus requirements for specific courses. The intent is to show a logical flow and structure for the course or syllabus.
10	Last Chapter	<b>General Instructions.</b> Include the prerequisite table, a bibliography, a list of any required training aids, and a glossary of abbreviations, acronyms, and terms.

Section A—Prerequisites.
Include a table depicting all lessons for academic training, ground training, simulator and aircraft, as required. List the prerequisite(s) for each lesson unless identified on a course map. If a course map is utilized cite applicability/location in this section.
Section B—Bibliography.
As applicable, list training aids, instructions, other syllabuses, instructor guides, student guides, training manuals, etc., if required by this specific course.
Section C—Glossary.
If desired, provide a list of abbreviations (acronyms and initialisms) and terms pertinent to this specific course and/or referred to in the syllabus or other documents.
Additional sections/paragraphs as necessary.