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SECRETARY OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE
MANUAL 32-1001**



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Civil Engineering

**CIVIL ENGINEERING FEDERAL
WAGE SYSTEM FORCE
DEVELOPMENT**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Department of the Air Force Manual (DAFMAN) implements Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities* which delegates to Air Force Deputy Chief of Staff, Logistics, Engineering and Force Protection (AF/A4) the policy making for civil engineering. This publication provides directive guidance and procedures for the administration and management of the Civil Engineer Federal Wage System (FWS) force development program for Civil Engineer organizations throughout the Department of the Air Force (DAF) in accordance with Department of the Air Force Instruction (DAFI) 36-2670, *Total Force Development*. It establishes Department of the Air Force guidance for determining needs; validating requirements; and evaluating, documenting, and reporting training. It is used, according to Title 5 United States Code Section 4118, *Regulations*, by management of civilian training functions for appropriated fund and non-appropriated fund civilians. Force development provides foundational and occupational competencies to all Airmen through education, training, and experience opportunities to satisfy current and future Department of the Air Force mission requirements. It is applicable to civilian employees and uniformed members of the Regular Air Force (RegAF), United States Space Force (USSF), Air Force Reserve (AFR), and Air National Guard locations where Civil Engineer FWS personnel reside. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. The Deputy Chief of Staff for Manpower, Personnel and Services (AF/A1), the Chief of the Air Force Reserve (AF/RE) and the Director of the Air National Guard (NGB/CF) collaborated to produce the guidance.

This instruction requires the collection and or maintenance of information protected by 5 USC § 552a, *Records maintained on individuals* (Privacy Act of 1974) authorized by 5 USC § 552a and Executive Order 13478, *Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers*. The applicable System of Records Notice(s) (SORN) F036 AFPC C, *Military Personnel Records System*; F033 AF B, *Privacy Act Request File*; F036 AF PC Q, *Personnel Data System*; F036 AFMC D, *Education and Training Management System*; F036 AF A1 A, *Air Force Automated Education Management System*, and F036 AETC L, *Community College of the Air Force Student Transcript, Administration, and Records System* are available at: <http://dpcllo.defense.gov/Privacy/SORNs.aspx>

Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. This publication may be supplemented at any level, but all supplements that directly implement this publication must be routed to the OPR of this publication for coordination prior to certification and approval. The authorities to waive wing, unit, delta or garrison level requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See DAFMAN 90-161, *Publishing Processes and Procedures* Table A10.1 for a description of the authorities associated with Tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the DAF. Compliance with attachments is mandatory.

Chapter 1

FEDERAL WAGE SYSTEM (FWS) CIVILIAN TRAINING

1.1. Overview. The Civil Engineer FWS force development program is designed to develop highly trained and capable engineer technicians, craftsmen, leaders, and supervisors. The program accomplishes this by providing proficiency, qualification, recurring, and certification training requirements and opportunities needed by a FWS technician to perform duties. The overall capability of a Civil Engineer (CE) unit depends on the state of training and the competency of personnel assigned. Training is essential to improving and sustaining unit capability and is one of the most important responsibilities of commanders and supervisors. When balancing resources (e.g., infrastructure maintenance and repair, support equipment, tools, funding, personnel, etc.), training carries an equal priority to the operational mission.

The Department of the Air Force Civil Engineers are critical components in ensuring DAF installations remain the world's premier power projection platforms. Installations, both enduring and expeditionary, are the foundational platforms enabling Air Force core missions and are integral to combat readiness and execution of combat operations. In short, Department of the Air Force cannot "fly, fight and win - airpower anytime, anywhere" without effective, sustainable installations.

1.2. Terminology. This publication utilizes both directive and non-directive language to describe appropriate actions to be taken to ensure compliance with this manual. The use of the words will, should, or may when applied to an individual or organizational position will have the below applicability.

- 1.2.1. Will - Indicates a mandatory requirement.
- 1.2.2. Should - Indicates a preferred or recommended method or option.
- 1.2.3. May - Indicates an acceptable or satisfactory method or option.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Overview. The unit commander is ultimately responsible for all training within the organization. Unit commanders and supervisors will ensure training programs are effective, efficient, and completed on-time to meet mission requirements.

2.2. Headquarters, United States Air Force, Deputy Chief of Staff for Logistics, Engineering and Force Protection, Directorate of Civil Engineers (AF/A4C) will:

2.2.1. Create and champion FWS Career Field Education and Training Plans (CFETPs) policy and strategy.

2.2.2. Ensure FWS CFETPs are referenced in policy publications relevant to Civil Engineer Training, such as Department of the Air Force Instructions (DAFI), Department of the Air Force Manuals (DAFMAN), Department of the Air Force Handbooks (DAFH), Playbooks, etc. as a tool that will be utilized to track and advocate for training requirements.

2.3. Civil Engineer Civilian Career Field Manager (CFM). CFMs communicate the education, training, and experience requirements for their functional communities. The CFM will:

2.3.1. Provide Air Force-level training policy and guidance.

2.3.2. Waive mandatory training requirements on a case-by-case basis. **Note:** The single point of contact for ARC waivers will be their respective Air Force Reserve Command (AFRC) or Air National Guard functional managers in accordance with DAFI 36-2670.

2.3.3. Approve all CFETPs for FWS occupational series changes that result from annual reviews and functional requests.

2.3.4. Monitor the training program to identify education and training gaps and advocate for policy and resources needed to fill those gaps.

2.3.5. Advocate for training within other Air Staff directorates, DAF corporate structure and other applicable agencies, i.e., Air Education and Training Command.

2.4. Air Force Civil Engineer Center (AFCEC) Chief of Force Development. The Chief of Force Development is the primary supervisor for FWS Force Development Managers and is the conduit between AF/A4C and AFCEC. The Chief of Force Development will:

2.4.1. Select a minimum of two FWS Subject Matter Expert (SME) representatives from each respective working group to attend the in-person (or alternative virtual meeting in accordance with existing policies) Specialty Training Requirements Team (STRT).

2.4.2. Convene a Utilization and Training Workshop (U&TW) that will include Major Command Functional Managers and the Wage Grade (WG) Functional Advisory Council Panel Chairs (or designated representative) as voting members and approve recommended changes from the STRT process.

2.4.3. Approve minor changes and/or administrative changes without going through the STRT or U&TW Process. Minor changes specifically mean, no more than five training line items in the Specialty Training Standard and/or changes in the Part 1 of the CFETP that potentially

change meaning, intent, or strategy. **Note:** The CE Civilian CFM must approve any line items or CFETP changes (minor or otherwise) that could potentially drive changes in FWS force development strategy or policy even if accomplished through U&TW, STRT, or other means.

2.5. Force Development Manager. The Force Development Manager is the functional system administrator for the Air Force approved FWS CFETPs. The Force Development Manager is the delegated representative for each CFETP and Air Force Job Qualification Standard managed in the Air Force's electronic training management system. The Force Development Manager will:

2.5.1. Manage the development, review, and sustainment of FWS CFETPs for Civil Engineer FWS occupational series to ensure conformity with CFETP standards.

2.5.2. Communicate ideas and provides recommendations to the Chief of Force Development to provide to AF/A4C Civilian CFM and the 3E0 – 3E6 CFM for consideration.

2.5.3. Ensure all FWS CFETPs are loaded in the Air Force's electronic training management system and are the most current and accurate versions.

2.5.4. Act as the point of contact for problems related to functional data records for all career progression documents CFETPs, Air Force Job Qualification Standard, and MAJCOM Job Qualification Standard as applicable.

2.5.5. Load and transcribe new CFETPs, Air Force Job Qualification Standard, Qualification Training Packages, and changes as directed by the CE Civilian CFM.

2.5.6. Ensure all applicable CFETPs, Air Force Job Qualification Standard, and or Command Job Qualification Standard are reviewed during Utilization and Training Workshops and/or Specialty Training Requirements Team.

2.5.7. Conduct reviews of CFETPs annually to ensure accuracy and currency. Address any job series related deficiencies/changes resulting from mission or role related changes and bring these changes to the attention of the AFCEC Chief of Force Development to decide if a STRT and/or U&TW is necessary. This will also satisfy the annual certification requirements of DAFMAN 90-161, *Publishing Processes and Procedures*.

2.5.8. Identify and drive implementation of FWS advanced training, vendor training, credentialing opportunities, and specialty skills training course content in support of CFETPs through the Chief of Force Development and as directed by the CE Civilian CFM.

2.5.9. Provide reach back expertise on all training and education for respective job series.

2.6. Civil Engineer Major Command (MAJCOM) Functional Manager (MFM) and Air National Guard- (ANG) MFM. The Civil Engineer MFM assigned to represent each MAJCOM, establishes continuation and qualification training requirements for their field units and weapons systems for which the MAJCOM is designated as lead. The ANG has a Chief Master Sergeant representative, who serves as principle for their components. The MFM will:

2.6.1. Provide U&TWs and STRTs with functional representation and Subject-Matter-Experts.

2.6.2. Advocate for resources (labor, equipment, and funding) to support new training requirements.

2.7. Civil Engineer Commander/Director. The Civil Engineer Commander/Director holds the responsibility of ensuring assigned FWS civilian personnel are properly trained. The Civil Engineer Commander/Director will:

- 2.7.1. Ensure an orientation program is developed and conducted (by the Unit Training Manager) for all FWS personnel newly assigned.
- 2.7.2. Appoint the Operations Flight Commander/Deputy (Facility Manager for ANG Units) as the single point of contact for FWS training related discrepancies/issues.
- 2.7.3. Establish and administer unit-training programs in accordance with DAFI 36-2670 and this DAFMAN.

2.8. Operations Flight Commander/Chief (Facility Manager for ANG Units). Civil Engineer Squadron, Operations Flight Commander/Chief will:

- 2.8.1. Provide necessary resources, and/or budget for resources, needed to sustain training operations and develop staff personnel to satisfy mission requirements.
- 2.8.2. Validate that the unit-training program is administered in accordance with DAFI 36-2670 and this DAFMAN.

2.9. Work Center Supervisors (Facility Manager for ANG Units). As a minimum, supervisors will:

- 2.9.1. Ensure training programs for their organization are established and administered in accordance with this publication, DAFI 36-2670 and local training directives.
- 2.9.2. Identify all training courses required for duty position task qualification and review these requirements when training is updated because of occupational/functional changes.
- 2.9.3. Ensure duty related courses that apply to selected personnel within a work center are individually loaded into the automated system.
- 2.9.4. Review and validate training qualifications and duty-position requirements in the Air Force approved automated system at least annually.
- 2.9.5. Ensure training is identified and scheduled.
- 2.9.6. Coordinate all formal and on-the-job training, including scheduling changes, through the chain of command.
- 2.9.7. Ensure training completions and task qualifications are properly documented before being entered into the automated system.
- 2.9.8. Coordinate scheduling on matters affecting students attending courses.
- 2.9.9. Ensure first line supervisors manage and retain a copy of training products for their employees.
- 2.9.10. At a minimum, at least one representative from each work center will attend quarterly training meetings conducted by the Unit Training Manager. Representatives will be a work center supervisor and/or any assigned work center training monitor.
- 2.9.11. Ensure training entries are updated into automated system in a timely manner.
- 2.9.12. Collect, consolidate, and verify work center inputs for training.

2.9.13. Submit consolidated quota requests to appropriate training providers.

Chapter 3

TRAINING DOCUMENTATION

3.1. Introduction. The purpose of this chapter is to provide shop supervisors and trainers with the training evaluation instructions and documentation that are unique to CE career field.

3.2. Training Documentation Instructions for Shop Supervision and Trainers. Shop Supervisors and Trainers will:

3.2.1. Use automated training documentation or other electronic forms as required for Air Force approved training records. **(T-3)**

3.2.2. Use Appropriate training requests for training required i.e., Standard Form 182, *Authorization, Agreement, and Certification of Training*, or AF Form 2426, *Training Request and Completion*. **(T-3)**

3.2.3. Use AF Form 898, *Field Training Requirements Scheduling Document*, or approved electronic form, to manage, forecast, and request unit-training requirements. Use this form to identify, prioritize, and request course requirements. **(T-3)**

3.2.4. Use locally developed or electronic equivalent AF Form 797, *Job Qualification Standard Continuation/Command Job Qualification Standard* for locally assigned duty position requirements not included in the CFETP. Place the AF Form(s) 797 in the training records of the person(s) performing that duty. If the work center supervisor develops an all-inclusive AF Form 797 for the work center, circle only those tasks that pertain to the individual performing the task or duty. **(T-3)**

3.3. Training Records.

3.3.1. The work center supervisor will keep training records on all FWS personnel, electronically. **(T-3)**

3.3.2. The work center supervisor will ensure supervisory personnel are certified on the "hands-on" tasks they may normally be expected to perform. **(T-3)**

3.4. Master Task List (MTL). The MTL is an integral part of training plan. The MTL is developed by the work center supervisor. The MTL is a list of all required tasks in a work center and is a source from which the member selects tasks for training and developing individual CFETPs. When developing the MTL, identify all task requirements within duty section or work center to ensure 100 percent task coverage. This means identifying all tasks to include recurring tasks, additional duties identified by the supervisor as a required task, and any mandatory tasks required by the CFM. Documents used to develop the MTL include, but are not limited to, the CFETP for all Wage Grade series within the work center; AF Form 797; AF Form 1098, *Special Task Certification and Recurring Training* (if applicable); automated forms, or forms required/approved by your MAJCOM. Member should document the MTL per the instructions in the CFETP. Take care to ensure all supervisors, trainers, and task certifiers can define and use the MTL. **Note:** It is advisable to identify tasks required for the duty position.

3.5. Duty Position Tasks. Duty position tasks, as identified in the specialty training standard portion of the CFETP, designate minimum on-the-job training requirements for grade-level with FWS grade/series.

3.5.1. Commanders/directors and supervisors may designate additional tasks as required for specific duty positions. When designated, certify these tasks using normal duty task procedures.

3.5.2. Duty positions tasks, which are not applicable to the base assigned are not required documentation.

3.6. Third-Party Certification of Duty Position Tasks. Current DAFI 36-2670 policy gives the CFM the authority to designate those duty position tasks that require third-party certification. AF/A4C does not require third-party certifications of duty position tasks. It is important to consider that personnel must still be trained on all tasks in accordance with the specific CFETP. In this case, the trainee/trainer will still have to demonstrate task proficiency to the “go/no go” level before signing off.

Chapter 4

DETERMINING TRAINING NEEDS

4.1. Determine Training Needs. Once the supervisor develops the MTL, the supervisor can then determine the training needs within the work center with a Master Training Plan.

4.2. Master Training Plan.

4.2.1. A Master Training Plan is a guide for supervisors, trainers, and certifiers to ensure that personnel are trained in an effective and efficient manner to meet training and mission requirements.

4.2.2. For minimum master training plan requirements refer to DAFI 36-2670, *Total Force Development*, and paragraph 4.6.7.1.2..

4.3. Identify Requirements from Initial Evaluations. Once your master training plan is developed for your work center or section, the supervisor will need to determine individual training requirements by comparing what the trainee knows or can perform against the tasks in the MTL. The difference between what the trainee can perform and what the work center requires is the member's training requirements. Determine individual requirements in one of the following methods. **(T-1)**

4.3.1. Initial evaluations. Using the MTL, identify what the trainee knows or can perform. If the employee is a new hire, compare the tasks in the appropriate column, i.e., apprentice/journeyman/craftsman, to see if they match the required level of expertise. Match the qualifications of the employee to the requirements of the duty position. This will help identify required training. If the employee can perform the task, without assistance, meets local requirements for accuracy, timeliness, and correct use of procedures, there are no additional requirements needing be performed. If the employee cannot perform the task to the go/no go level per the CFETP standards, identify the task as a training requirement and open training when training begins.

4.3.2. Review training previously received. If the employee is assigned from another base or work center, the supervisor should review the CFETP (if utilized) and verify their ability to perform the tasks (if required in the new work center). Match the qualifications of the trainee against the predetermined standard in your master training plan. If the employee can perform the task, no further action is required. If the employee cannot perform the task (or the standard/method of performance changed) and the task is required in the new work center, decertify the task and establish the training requirement. If the employee can perform the task, but the task is no longer required in the new duty position, remove the task from the duty task list (but not the previous certification dates or initials).

4.3.3. Set training priorities. When setting training priorities, keep in mind that some tasks require training before others. Other tasks may have a prerequisite task or knowledge requirements. For example, if the task is to measure electrical output of a socket, the trainer might need to teach use of the multi-meter first.

4.3.4. Plan for concurrent knowledge training. Most tasks require some type of background knowledge or skill. Member may use the Career Development Courses, AFIs, manufacturer's

manuals, training references, or other materials to ensure the trainee has the knowledge base to perform the task.

4.4. Select Training Strategies. The next step in the process is to decide how and where to provide the training. What is the training objective? What is the best method for conducting training? Is there a distance-learning tool that available to assist in the training process? “Supervisors should work with the Unit Training Manager to ensure effective utilization of all available training avenues provided by AFCEC, Air Force Institute of Technology (AFIT), Air Education and Training Command (AETC), etc. and for those that available, to submit functional training requests during the annual Civilian Automated Training Input Program (CATNIP) data-call.” The questions in **Table 4.1** will assist in determining the best training method.

Table 4.1. Determining Training Strategy.

Step	Yes	No	N/A
(1) Do you need classroom time?			
(2) Does the knowledge in the Career Development Course meet some of your training requirements?			
(3) Can the trainer train more than one trainee at a time?			
(4) Can training be conducted without equipment downtime?			
(5) Is related background training available from another source?			
(6) Can regularly scheduled work be conducted at the same time as the training?			
(7) Can the training be conducted in one session?			
(8) Are special training aids required?			
(9) Will special training sessions be required?			
(10) Do all trainees need to be trained on the same task?			
(11) Can the training be accomplished through distance learning or web-based training?			

4.5. Develop Training Objectives. Consider what the employee must do or know for qualification. A training objective must define the resultant behavior (what the trainee must do or know), the standard (how well the task must be performed), and the condition (what will be given or denied during the final evaluation).

4.6. Develop Lesson Guides, Task Breakdowns and Closeout Procedures.

4.6.1. Some training tasks are simple and can be completed in one session, thus, no requirement exists to have lesson guides or detailed task breakdowns. For these tasks, simply conduct and complete the training.

4.6.2. Some tasks are complicated, extremely large, could be confusing to the trainee, or take several days or weeks to complete, and thus, need to be taught in several sessions. These tasks will drive the need for lesson guides and detailed task breakdowns that provide teachable units. If there is a regulation or manual that provides systematic procedures, evaluation steps, checklists, etc., use these as the task breakdown. If so, reference the training source in the MTL. If the task is covered under several regulations or manuals, is not covered under any regulations or manuals, or is lengthy or complicated, a task breakdown or lesson guide is advisable; a well-designed task breakdown can also serve as an evaluation tool during the evaluation phase.

4.6.3. Scheduled training should receive priority attention. To the greatest extent possible, training should coincide with work schedules; however, when this is not possible, schedule training far enough in advance that supervisors have enough time to schedule their trainees to attend. To the greatest extent possible, training should be scheduled in writing.

4.6.4. After the trainee completes the training, the close out procedures include allowing the trainee time to practice what they learned. After that period, the trainer will determine when the trainee is ready to be certified on the task. If no third-party certification is required, the trainer closes out the task by initialing and identifying the task as complete. If the task requires third party certification, the task certifier conducts the task evaluation and closes out the task by initialing the task as complete.

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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

5 USC § 4118, *Regulations*

5 USC § 552a, *Records maintained on individuals* (Privacy Act of 1974)

Executive Order 13478, *Amendments to Executive Order 9397 Relating to Federal Agency Use of Social Security Numbers.*

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

DAFI 36-2670, *Total Force Development*, 25 June 2020

DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022

F036 AFPC C, *Military Personnel Records System*

F033 AF B, *Privacy Act Request File*

F036 AF PC Q, *Personnel Data System*

F036 AFMC D, *Education and Training Management System*

F036 AF A1 A, *Air Force Automated Education Management System*

F036 AETC L, *Community College of the Air Force Student Transcript, Administration, and Records System*

Prescribed Forms

None

Adopted Forms

AF Form 797, *Job Qualification Standard Continuation/Command Job Qualification Standard*

AF Form 898, *Field Training Requirements Scheduling Document*

AF Form 1098, *Special Task Certification and Recurring Training*

AF Form 2426, *Training Request and Completion*

Standard Form 182, *Authorization, Agreement, and Certification of Training*

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AETC—Air Education and Training Command

AFCEC—Air Force Civil Engineer Center

AFI—Air Force Instruction

AFIT—Air Force Institute of Technology

AFPD—Air Force policy directive

AFPM—Air Force policy memorandum
AFR—Air Force Reserve
AFRC—Air Force Reserve Command
ANG—Air National Guard
ARC—Air Reserve Components
CATNIP—*Civilian Automated Training Input Program*
CE—Civil Engineer/Civil Engineering
CFETP—Career Field Education and Training Plan
CFM—Career Field Manager
DAF—Department of the Air Force
DAFI—Department of the Air Force Instruction
DAFH—Department of the Air Force Handbook
DAFMAN—Department of the Air Force Manual
FWS—Federal Wage System
MAJCOM—Major command
MTL—Master Task List
MFM—Major Command Functional Manager
NGB—National Guard Bureau
OPR—Office of Primary Responsibility
USSF—United State Space Force
U&TW—Utilization and Training Workshop
RegAF—Regular Air Force
SME—Subject Matter Expert
STRT—Specialty Training Requirements Team
WG—Wage Grade

Office Symbols

AF/A1—The Deputy Chief of Staff for Manpower, Personnel and Services
AF/A4—Air Force Deputy Chief of Staff, Logistics, Engineering, and Force Protection
AF/A4C—Deputy Chief of Staff for Logistics, Engineering and Force Protection, Directorate of Civil Engineers
AF/RE—Chief of the Air Force Reserve
NGB/CF—Director of the Air National Guard

Terms

Adopted Form—A form that is used in or required by a publication other than the publication that prescribes the form.

Air Force Job Qualification Standard—Training documents approved by the AF Career Field Manager for a particular job type or duty position within an AF Specialty.

Functional Manager—Senior leaders, designated by the appropriate functional authority who provide day-to-day management responsibility over specific functional communities at the MAJCOM, FOA, DRU, or ARC level. While they should maintain an institutional focus in regards to resource development and distribution, Functional Managers are responsible for ensuring their specialties are equipped, developed, and sustained to meet the functional community's mission as well as encourage force development opportunities in order to meet future needs of the total AF mission.

Specialty Training Requirements Team—Air Force career field managers use this forum and quality control tool to determine and manage career field education and training requirements.

Third-Party Certification—Task certification conducted by an approved external accreditation and/or certification body after training, inspection, testing or any combination thereof.