

AIR FORCE QUALIFICATION TRAINING PACKAGE (AFQTP)



for
READINESS
(3E9X1)

MODULE 8
COMMUNICATIONS

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Career Field Education and Training Plan (CFETP) references from 1 Apr 97 version.

OPR: HQ AFCESA/CEOT

Certified by: HQ AFCESA/CEO
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INTRODUCTION

Air Force Qualification Training Packages (AFQTPs) are step-by-step procedural guides describing how to perform a certain task identified in the Specialty Training Standard (STS) portion of the Career Field Education and Training Plan (CFETP). The procedures represent the Air Force's standardized method of accomplishment for personnel in the Readiness specialty. In addition, the authors of these AFQTPs have included hints and personal expertise to aid the trainee in perfecting their skills on the task or the piece of equipment associated with the task.

AFQTPs do not take the place of on-the-job training. An AFQTP is intended to:

- Standardize the training procedure for a task/piece of equipment.
- Enhance the On-the-Job Training (OJT) Process.
- Provide “just-in-time” training for a task/piece of equipment.
- Provide the minimum knowledge on a task/piece of equipment when a unit does not have the equipment.

Put this package to use. We hope you'll find it a valuable tool which aids you in becoming a competent Readiness journeyman/craftsman. These AFQTPs were written by subject matter experts in your Air Force specialty and revised and edited by TSgt Brett Heck and TSgt Leonard Howard under the direction and guidance of HQ AFCESA/CEOT. If you have any recommendations for improvement or change, please contact the Readiness Career Field Manager at the address below.

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This AFQTP book contains the following sections:

- **Introduction.** This section gives an overview on the purpose of AFQTPs and their use.
- **Trainer's Guide.** The guide contains information the trainer needs to know in order to manage the trainee's completion of AFQTPs.
- **Trainee's Guide.** The guide contains information the trainee needs to know about completing AFQTPs.
- **Improvements/Correction Letter.** This section contains an *Improvement/Corrections Letter* to make recommendations concerning this training product.
- **AFQTP Completion Verification.** Page for trainee and trainer to verify completion of the AFQTPs for the Readiness AFS.
- **AFQTPs.** This section contains the *Task Training Guide* (step-by-step instructions), background information, review questions, confirmation key, and performance checklist for each Readiness AFQTP. The performance checklists are used by the trainer to verify a trainee has learned the objectives for each AFQTP. (These are not the final tests.)
- **AFQTP Tests.** Element Tests are not included in this book. Initial Element Tests will be sent out on disks to all Unit Training Managers who will manage and control these tests. Upgrade versions of these tests will be made available on future revisions of CerTests. Failure to manage the tests compromises the integrity of the AFQTP evaluation process and the overall training program. Exact testing procedures will be left to the discretion of the individual units. (**Note:** Unit Training Managers should refer to AFI 36-2301, *Professional Military Education*, for specific responsibilities of a Test Control Office.)

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TRAINER'S GUIDE

These Air Force Qualification Training Packages (AFQTPs) were developed to enhance on-the-job training (OJT) for Readiness personnel. This guide will help you lead the trainee in gaining enough knowledge to perform the specified tasks. It will also aid task certifiers in evaluating trainees for task certification.

It is important for you and your trainee to know that an AFQTP does not replace hands-on-training, nor will successful completion of an AFQTP meet the requirement for task certification. AFQTPs' intentions are listed in the Introduction Section of this guidebook.

AFQTPs were written for a trainee to satisfy one or more tasks identified in the Readiness Specialty Training Standard (STS). To best instruct the trainee on the tasks, they were divided into numerous AFQTPs. Each AFQTP has a *Task Training Guide* explaining what the trainee must learn (learning objectives), training references, and most importantly, step-by-step instructions the trainee must follow to accomplish the task.

As the trainer, you play a vital role in the training process. It is important that you understand and perform your responsibilities and duties in administering the AFQTPs. Your responsibilities are:

- Review the AFQTP with the trainee. You have the flexibility to arrange training for each module, unit, and AFQTP in the order you decide, based on your schedule and local conditions.
- Review the AFQTP with the trainee and:
 - a. Ensure the trainee meets the prerequisites for taking the AFQTP.
 - b. Review the training references with the trainee to better understand each learning objective.
 - c. Ensure the trainee understands the learning objectives. If the trainee has any questions, clarify the AFQTP objective expectations.
 - d. Go over the AFQTP process with the trainee and ensure they understand the requirements for successful completion.
 - e. Establish a time schedule for the trainee to complete the entire AFQTP module.

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The AFQTP Process is as follows:

- Unit Training Manager will issue each trainee copies of the AFQTPs applying to their AFS. Each shop will maintain a binder with all the AFQTPs, without the answer keys.
- Trainer reviews the AFQTP list with the trainee going over the different modules, units, and AFQTPs.
- Trainer and trainee determine a time schedule for the trainee to complete the entire AFQTP module. Do not leave it open-ended. Remember, the objective of the AFQTP program is for the trainee to gain knowledge, so allow sufficient time for the trainee to learn each task thoroughly.
- Included as part of the trainee's AFQTP package are review questions and a confirmation key. Trainees will answer the review questions upon completion of the learning objectives. The trainee can use the *Task Training Guide* and additional technical references in order to answer the questions. The trainee will then verify their answers using the confirmation key. It is highly recommended that the trainer remove this confirmation key from the back of the module prior to administering the QTP to the trainee.
- Upon notification from the trainee that they are ready to test, the trainer will first evaluate the trainee's readiness using the AFQTP's performance checklist. Once you are satisfied the trainee understands the learning objective, arrange with the Unit Training Manager for the trainee to take the AFQTP test. to pass, The trainee must score a minimum of 80%. The trainer will review any missed questions with the trainee to ensure understanding of the material.
- If the trainee does not meet the learning objectives, the trainer and the trainee need to review the missed areas until the trainee meets the objectives. Conduct feedback sessions with the trainee on each AFQTP as often as you feel is necessary.
- After the trainee successfully completes an AFQTP, the trainee may proceed onto the next AFQTP within the module/unit. Upon the trainee's successful completion of an entire AFQTP, the trainer and trainee will sign the AFQTP Completion Verification page. The trainer will enter a completion notification on an AF Form 623a, *On-the-Job Training Record Continuation Sheet*, in the trainee's training record.

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TRAINEE'S GUIDE

These Air Force Qualification Training Packages (AFQTPs) were developed to enhance your on-the-job training (OJT). They provide you with the standardized steps necessary to complete the mandatory tasks identified in the Specialty Training Standard (STS) section of your Career Field Education and Training Plan (CFETP). AFQTPs are not intended to replace hands-on training or substitute for task certification.

Subject matter experts (the authors) have made the learning process more effective by subdividing the training material into teachable modules, units, and AFQTPs. Your trainer has the flexibility to arrange training for each module/unit/AFQTP in the order that best meets your schedule and local conditions. Each AFQTP has a *Task Training Guide* which identifies the training references, prerequisites, tools, learning objectives, and the step-by-step procedures for accomplishing the task.

Prior to beginning an AFQTP there are a number of things you should do:

- Ensure your trainer explains the AFQTP process and your responsibilities in that process.
- Review the module/unit/AFQTPs and the *Task Training Guide* with your trainer.
- Review the training references to better understand the objective of each module and to ensure you meet all the prerequisites. If you have any questions about the objective or learning expectations, ask your trainer. Ask early on so you do not flounder through an AFQTP only to learn you misunderstood the learning objective.

AFQTP Testing

Each AFQTP has review questions to help determine if you achieved the learning objectives. You can use the *Task Training Guides* or technical references when completing the review questions. A review question confirmation key is also included with each AFQTP. The review questions provide immediate feedback, thereby reinforcing learning. Ask your trainer to explain any questions you don't understand. Refer to applicable references for more detailed information.

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When you feel you are ready to test on an AFQTP, inform your trainer. The trainer will use the performance checklist to evaluate your mastery of the learning objectives. If your trainer determines you are ready, you will be scheduled to take the AFQTP test. Your Unit Training Manager will administer the test. You must score a minimum of 80% to successfully pass an AFQTP test. After you successfully pass the AFQTP test, you and your trainer will sign the AFQTP Completion Verification page. In addition, the trainer will enter the completion on an AF Form 623a, *On-the-Job Training Record Continuation Sheet*, in your training records.

Keep in mind, passing an AFQTP does not relieve you of the responsibility to become hands-on certified, if required. If you do not successfully accomplish an objective, your trainer will review the missed areas with you. You will be given additional time to learn the material until the objective is successfully met.

HINT:

Within normal workload constraints, set aside sufficient time to work on the package. Studies into effective training programs indicate that the best trainees reserve the same time each day to complete their study. Pace yourself, establish a schedule, and stick to it. Give yourself top priority to become qualified.

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IMPROVEMENTS/CORRECTIONS LETTER

MEMORANDUM FOR HQ AFCESA/CEXR

FROM:

SUBJECT: Improvement/Correction to AFQTP 3E9X1XX.XX

1. *List any improvements/corrections you may have about this AFQTP. Please be specific as to the page, reference, and element.*
2. *Please include your name, organization, address, DSN and fax so we can contact you if we have any questions or need some clarification with your recommendations.*

(Send your comments to the address listed in the *Introduction* section of this guidebook.)

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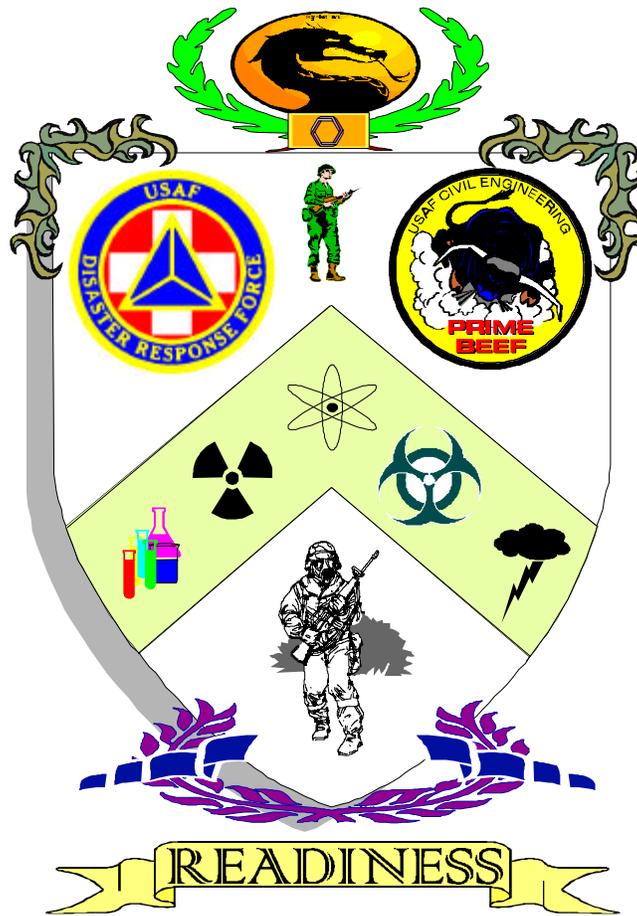
MODULE 8

COMMUNICATIONS

AFQTP Completion Verification

AFQTP	Trainer's Signature	Trainee's Signature	Date Completed
8.1. Use Radios			

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MODULE 8

AFQTP UNIT 1

USE RADIOS

(8.1.)

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USE RADIOS

Task Training Guide

STS Reference Number/Title:	8.1., Use radios
Training References:	<ul style="list-style-type: none"> • AFI 33-106; AFJMAN 24-306, AFI 33- 211, • Radio's Operator's Manual
Prerequisites:	<ul style="list-style-type: none"> • Possess, as a minimum a, 3E931 AFSC. • Access to a base station, hand-held, or mobile radio.
Equipment/Tools Required:	<ul style="list-style-type: none"> • Available radio
Learning Objective:	<ul style="list-style-type: none"> • The trainee will be able to operate radios in peacetime and wartime operations.
Samples of Behavior:	<ul style="list-style-type: none"> • Trainee will be able to operate all types of radios used by readiness including hand-held, base station, and mobile.
Notes:	
<ul style="list-style-type: none"> • Refer to Operator's manuals for technical information. 	

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USE RADIOS

Background: To have a successful outcome during an operation, the most important thing we must do as a team is to communicate with one another. If our message doesn't make it to the receiver, our mission could fail. Radio communication is one of the primary means of passing information. Also, radios could become your primary means of communicating with other base agencies if telephones become inoperative or if you are in a deployed location. It is vital that all Readiness personnel understand how to use radios.

Types of Radios: Readiness personnel use a variety of radios in their day-to-day operations. Whether it be a hand-held, mobile, or base station, the operation procedures are basically the same. The most common radio used will be the hand-held non-tactical. Observing proper radio discipline, practicing COMSEC, and transmitting properly are only a few measures for effective communication. Some general characteristics of the various radio types are shown below.

Hand-held. Portable, lightweight radio.

- Transmit button - Located on side or back of radio. Opens frequency channel.
- Microphone/Speaker - Located on front of radio. Dual functions as both a receiver and a transmitter.
- Squelch - Brings frequency in clearer and eliminates background noise.
- Frequency/Channel Selector - Changes frequency/channel of radio.

Base Station. Stationary system.

- Transmit button - Located on the base of the microphone. Opens frequency channel.
- Microphone - Transmits communication over the selected frequency.
- Speaker - Can be located in the main component of the base station or separate from the main component.
- Squelch - Brings frequency in clearer and eliminates background noise.
- Frequency/Channel Selector - Changes frequency/channel of radio.

Mobile. Vehicle mounted radio.

- Transmit button - Located on the side of the microphone. Opens frequency channel.
- Microphone - Transmits communication over the selected frequency.
- Speaker - Located separate from the main component. Usually dash or floor mounted.
- Squelch - Brings frequency in clearer and eliminates background noise.
- Frequency/Channel Selector - Changes frequency/channel of radio.

COMSEC. COMSEC awareness is a must. The trainee must understand radio communications are not necessarily secure. Even radios with secure voice capability do not always transmit in the classified mode. Classified and/or sensitive information must never be discussed via nonsecure radios. Information on status of casualties or weapons should not be transmitted "in the clear".

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Inspect/Use. Prior to using the radio, you must read the operator’s manual. After familiarizing yourself with the radio, install a charged battery, first checking it’s condition (hand-held only), ensure you are on the correct frequency or channel, and perform a radio check. Courtesy is important too. Never transmit while others are transmitting. Know what you want to say before you “key” the mike (pressing the transmit button on the microphone) and when finished speaking, release the transmit button.

Phonetic Alphabet. The phonetic alphabet is used to spell difficult-to-understand words or phrases. (See Figure 1) Most readiness flights also use call-signs to identify personnel without divulging their actual identity. You should have a list of call signs readily available in the Readiness Control Center. If possible, distribute copies of this list to all personnel with a radio. This will ensure that information gets to the right people in a timely manner. Figure 2 shows example call signs.

A=ALPHA	I=INDIA	R=ROMEO
B=BRAVO	J=JULIET	S=SIERRA
C=CHARLIE	K=KILO	T=TANGO
D=DELTA	L=LIMA	U=UNIFORM
E=ECHO	M=MIKE	V=VICTOR
F=FOXTROT	N=NOVEMBER	W=WHISKEY
G=GOLF	O=OSCAR	X=X-RAY
H=HOTEL	P=PAPA	Y=YANKEE
Q=QUEBEC		Z=ZULU

Figure 1, The Phonetic Alphabet

When transmitting names of personnel without established call-signs, avoid using ranks, i.e. Capt Jones, or MSgt Brown. Instead, preface the last name with “personnel.” Also, when transmitting via radio, identify the unit or person you are calling first, then give your identity, i.e. “Personnel Jones, this is Phoenix Control, over.” The trainee must understand that home-made codes are not authorized in the Air Force. Lastly, when transmitting “exercise” messages, they must be preceded and concluded with the phrase “ exercise message.”

COMMAND ONE - WING CMDR	COMMAND TWO - VICE WING CMDR
COMMAND THREE - BASE CMDR	CHARLIE - COMMAND POST
CHIEF ONE - FIRE CHIEF	CHIEF TWO - ASST FIRE CHIEF
CE ONE - CE CMDR	PHOENIX CONTROL - CONTROL CENTER (DPCC/NBCCC)
PHOENIX MOBILE- MCP	PHOENIX ONE - READINESS FLIGHT CHIEF
PHOENIX TWO - READINESS SUPERINTENDENT	

Figure 2, Example of Call Signs

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Compatibility Problems. Your flight may have two types of radios assigned, one for day-to-day operations and other peacetime responses and another for deployment. Both radios may have the capability to go secure, but still may not communicate with each other.

NOTE:

The radios used by the Air Force may be incompatible in the secure transmission mode with the radios used by other services at the same time (SCOPESHIELD II vs SINGARS). Recommend vehicles in all military service branches, such as the FOX vehicle, be equipped with compatible radios, preferably the SINGARS.

Interoperability. Another problem exists when deploying to both USAFE and PACAF. Functions throughout the theater are assigned the same frequency. For example, all readiness flights in the theater have the same frequencies assigned. The frequency from your home base may be another function's assigned frequency in the deployed theater and will require changing. On some radios this is not complicated, while others require reprogramming using a software program. Additionally, all radios must be in non-secure, DES, or secure in order to communicate with each other.

Electronic Attack. A division of electronic warfare involving the use of electromagnetic or directed energy to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability. Also includes: actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum, such as jamming and electromagnetic deception; and employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams).

Jamming. Jamming is the interruption of the communication signal. It is likely an adversary will use jamming to hamper communications and mission accomplishment. If you encounter jamming, don't acknowledge. Change channel to a clear frequency, if possible.

Authorization for Radios. Radio authorizations for the Readiness flight are found in allowance standard (AS) 660. In addition, the Prime BEEF Equipment Stock Listing (ESL) lists the types, stock numbers, and amounts of radios required to support your unit's tasked unit type code (UTC).

NOTE:

The ESL alone does not authorize the radios. You must use the allowance standard.

Repeaters. You can extend the range of your communications system by using a repeater. When using a repeater, wait for 2 seconds after pressing the transmit button before starting your communication. This allows time for the signal to reach the repeater.

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**Review Questions
for
Use Radios**

Question	Answer
1. What action should be accomplished prior to “keying” the mike?	a. Use the phonetic alphabet. b. Perform a radio check. c. Know what you want to say. d. Install the battery.
2. Radio communications are a secure means of transmitting information.	a. True. b. False.
3. What communication method is used to transmit difficult or hard to understand words or phrases?	a. Call signs. b. Code words. c. Use the term “exercise message”. d. Phonetic alphabet.
4. When attempting to contact someone via radio, you contact them first and then identify yourself e.g. “PHOENIX CONTROL, this is Personnel Jones, over”.	a. True. b. False.

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USE RADIOS

Performance Checklist		
Step	Yes	No
1. Did trainee verify serviceability of radio battery? (Hand-held only)		
2. Did trainee perform an operations/ radio check?		
3. Did trainee key -transmit- then release the transmit button?		
4. Did trainee identify the called unit prior to identifying self?		
5. Did trainee display proper COMSEC methods?		
6. Does trainee use the phonetic alphabet properly?		

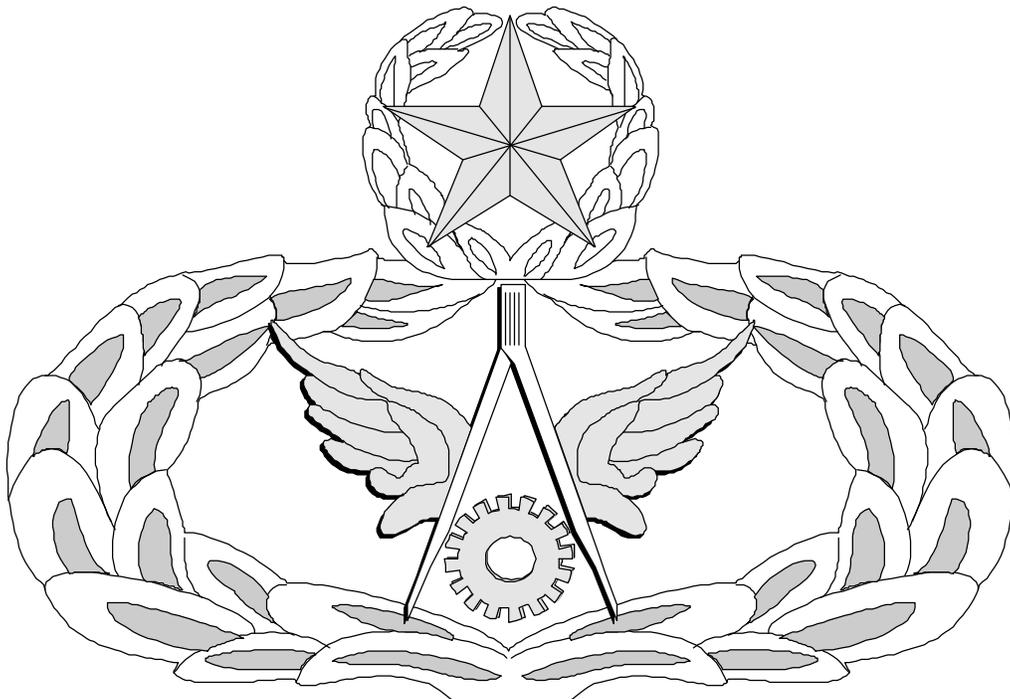
FEEDBACK: Trainer should provide both positive and/or negative feedback to the trainee immediately after the task is performed. This will ensure the issue is still fresh in the mind of both the trainee and trainer.

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Air Force Civil Engineer

QUALIFICATION TRAINING PACKAGE (QTP)

REVIEW ANSWER KEY



For
READINESS

(3E9X1)

MODULE 8

COMMUNICATIONS

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Key-1

USE RADIOS

(3E9X1-8.1.)

Question	Answer
1. What action should be accomplished prior to “keying” the mike?	c. Know what you want to say
2. Radio communications are a secure means of transmitting information.	b. False
3. What communication method is used to transmit difficult or hard to understand words or phrases?	d. Phonetic alphabet.
4. When attempting to contact someone via radio, you contact them first and then identify yourself e.g. “PHOENIX CONTROL, this is Personnel Jones, over”.	a. True

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