

Candidate Fitness Assessment Instructions

Service Academies Admissions Requirement

Satisfactory completion of the Candidate Fitness Assessment (CFA) is one of the requirements for admission to the United States Air Force, Military and Naval Academies. The CFA is a test of strength, agility, speed and endurance. It is used to predict a candidate's aptitude for the physical program at the Service Academies. The results of this test are very important in the overall assessment of your admissions file, so you should become familiar with the six events in the CFA and practice. The examination consists of the following events: basketball throw (from kneeling position), cadence pull-ups or the flexed-arm hang (women's option), a shuttle run, modified sit-ups (crunches), push-ups and a one-mile run.



Advice to the Candidate

In order to qualify for admission to the Service Academies, you must take the CFA. You should remember that your score is a combination of your best efforts on each of the six events. Strive for excellence and the highest possible score.

Your examination may be administered by any physical education teacher or Service Academy Liaison Officer. Any active duty commissioned officer may administer the CFA for service members. It is your responsibility to arrange for a qualified person to conduct your examination.

Ask your examiner to record your performance on the enclosed CFA Score Sheet and mail it to the Admissions Office of the Service Academy you are applying in the postage-paid, pre-addressed envelope provided. **Note: The scores must be recorded with a black ball-point pen.**



For the Examiner

The Candidate Fitness Assessment (CFA) was developed to measure and evaluate a candidate's potential to successfully engage the physical program at the United States Service Academies. The CFA consists of six (6) physical and motor fitness events that are designed to measure muscular strength and endurance, cardio-respiratory endurance, power, balance, and agility. When administered together as a single battery, these six test events will help the Admissions Committee determine if a candidate possesses the stamina and movement skills required to successfully complete the physical program and perform the duties required of commissioned officers in the uniformed services.

The six test events of the CFA are administered consecutively with specified start, finish, and rest times. Candidates

should attempt to do their best on all six events, keeping in mind that the events are sequenced to produce a cumulative loading effect. In other words, after completing the first five events, it is doubtful a candidate will score his/her personal best on the 1-mile run. This has been considered in the development of the scoring standards, which will be used to evaluate performance in each of the six events. Candidates' raw scores will be converted to scale scores (0-100 points) based upon their performance on each event. The 100 point maximum score, by event and gender, are listed in Table 1 below. A candidate who achieves the 100 point level on any of the first five events should not attempt further repetitions as this will not improve his/her score.

TABLE 1. Maximum performance scores by event and gender.

	Basketball Throw	Pull-Ups	Shuttle Run	Modified Sit-Ups	Push-Ups	1-Mile Run
Male	102	18	7.8	95	75	5:20
Female	66	7	8.6	95	50	6:00

Test Administration

The CFA is an important component of the admissions process at each Service Academy and is used to determine if candidates can meet the physical rigors of military life. The test must be administered properly and to standard to accurately reflect a candidate's physical and motor fitness and to be fair to all candidates. The CFA must be administered by a physical education teacher (hereafter referred to as the test administrator) from the candidate's high school or the Service Academy's Liaison Officer. The test must be administered according to the directions with strict adherence to the time schedule. At the completion of testing, both the candidate and the test administrator must sign the score card. By signing the CFA score card, the candidate and test administrator are affirming the test was administered to standard and the scores accurately reflect the candidate's physical performance. Practice tests are encouraged to familiarize the candidate with the "pace" and stamina required to complete the entire test battery. However, the officially reported score must come from a single test administration.

Thank you for your assistance in helping the Service Academies Admissions Offices obtain important test results that will help determine a candidate's qualification.

Support Personnel

Additional personnel will be needed to facilitate the administration of certain events, in particular the basketball throw. It may also be prudent to have control and/or medical personnel on site during the test; however, they are not required. At a minimum, the test administrator will have an emergency action plan for getting medical help if needed.

Duties of Test Personnel

The test administrator will prepare the test site with the required equipment in advance of testing (Figure 1). The test administrator and assistant(s) will have a printed copy of the event order/ instructions and will be totally familiar with all testing procedures and time limits. The test administrator will announce the event instructions immediately before each event is performed. Test administrators will have a clipboard and an ink pen to record the results on the candidate's score-card and must maintain strict professional standards.

Equipment

The following list of equipment is required to administer the CFA:

- 1 sit-up mat
- 1 100' tape measure
- 2 stop watches (minutes/seconds/tenths)
- 1 regulation men's basketball
- 1 pull-up bar
- 1-mile flat running surface

Candidates should wear clothing and shoes that are appropriate for physical training such as shorts, T-shirts, socks, and running shoes (tennis/basketball shoes are not recommended for the one-mile run). Any item that gives a candidate an unfair advantage is not permitted during the CFA. Wearing devices such as weight belts or elastic bandages may or may not provide an advantage. However, for standardization purposes, such additional equipment is not authorized unless prescribed by medical personnel. The only exceptions are appropriate cold weather apparel while running outdoors.

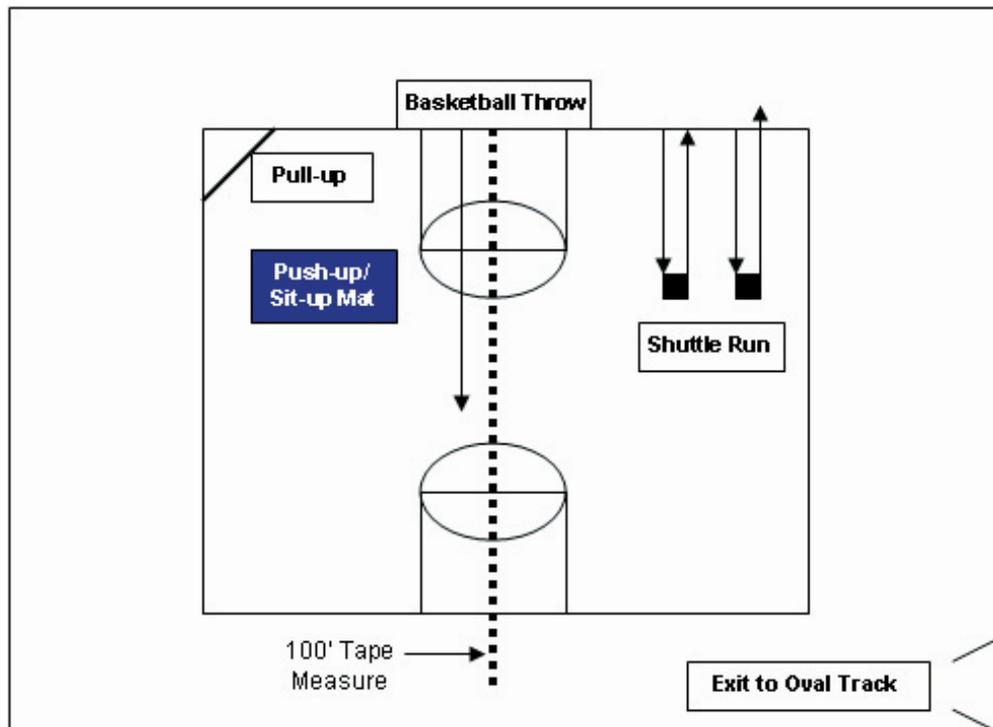


Figure 1

Test Site

From a conceptual standpoint, the CFA is designed to be administered in two adjacent venues: an indoor gymnasium and an outdoor track. The gymnasium will be of sufficient size to permit testing the basketball throw. The space needed is approximately 100 linear feet (slightly longer than a regulation basketball court). The pull-up bar will be of sufficient height (approximately 8') that the candidate's feet will not touch the floor at full extension. The bar diameter will be no greater than two (2) inches. The test administrator will prearrange the first five (5) events prior to the start of the testing.

The one-mile run (1MR) is the last event administered in the CFA. Although it may be administered in an indoor gymnasium or stadium, an 8-minute time period has been allotted for transition to an outdoor track. Regardless of the one-mile run course, the running surface will be flat and free of debris. In either the indoor or outdoor facility, it is imperative the one-mile distance be measured accurately.

Test Procedures

On test day, the candidate should be encouraged to spend 20-30 minutes in active warm-up and stretching prior to beginning the test. The test battery must be completed according to the timeline instructions and candidates are not permitted to warm-up, rest, or practice other than during the time officially allotted. The test administrator will read the instructions printed here in large type verbatim to the candidate:

“YOU ARE ABOUT TO TAKE THE UNITED STATES SERVICE ACADEMIES’ CANDIDATE FITNESS ASSESSMENT. THIS TEST WILL MEASURE YOUR MUSCULAR STRENGTH AND ENDURANCE, CARDIORESPIRATORY ENDURANCE, AND MOTOR FITNESS. THE RESULTS OF THIS TEST WILL BE USED IN THE ADMISSIONS PROCESS AT EACH SERVICE ACADEMY BY DEM-

ONSTRATING YOUR LEVEL OF PHYSICAL AND MOTOR FITNESS. LISTEN CLOSELY TO THE TEST INSTRUCTIONS. YOU MAY CEASE WORK WHEN YOU HAVE SCORED THE MAXIMUM FOR ANY INDIVIDUAL EVENT. OTHERWISE, DO YOUR BEST ON EACH EVENT. AFTER YOU COMPLETE EACH EVENT, THE TEST ADMINISTRATOR WILL RECORD YOUR RAW SCORE. IF AT ANY TIME YOU CANNOT CONTINUE TO MEET THE TIMED REQUIREMENTS, THE TEST WILL BE TERMINATED.”

Testing Instructions

The following paragraphs describe the equipment, facilities, personnel, instructions, administration, timing techniques, and test administrator's duties for each event.

Basketball Throw

The basketball throw measures ability to generate shoulder girdle power and total body coordination and balance from a stationary position.

The candidate must:

- ▼ Keep his/her knees parallel to and behind the baseline and on the floor during the event. May use a mat to cushion the knees.
- ▼ In an overhand throwing motion, throw a men's basketball as far as possible (Figure 2). The non-throwing hand may be used to steady the ball before



Figure 2

Testing Sequence

The test sequence will follow the order of the events listed below. The order of events cannot be changed. There are no exceptions to this sequence of timing.

Events	Test Start Time	Testing Time	Rest	Total Time
Basketball Throw	0 Minutes	2 Minutes	3 Minutes	5 Minutes
Cadence Pull-ups	5 Minutes	2 Minutes	3 Minutes	10 Minutes
Shuttle Run	10 Minutes	2 Minutes	3 Minutes	15 Minutes
Modified Sit-ups	15 Minutes	2 Minutes	3 Minutes	20 Minutes
Push-ups	20 Minutes	2 Minutes	8 Minutes	30 Minutes
One Mile Run	30 Minutes	Until Completed		Until Completed

throwing, but only one hand can be used to throw the ball (e.g. no two-handed throws) (Figure 3).



Figure 3

- ▼ Not touch the floor beyond the baseline with any part of the body until the basketball has landed.
- ▼ Execute three trials within a 2-minute time period.

The test administrator will:

- ▼ Extend the 100' tape measure the length of the testing area, perpendicular to the throwing baseline.
- ▼ Start the event at "0" minutes.
- ▼ Mark the point of impact with a pointer/yardstick for all three trials.
- ▼ Measure the perpendicular distance from the marked point of impact to the center-line tape (Figure 4).
- ▼ Record the score to the nearest foot for the trial with the greatest distance.

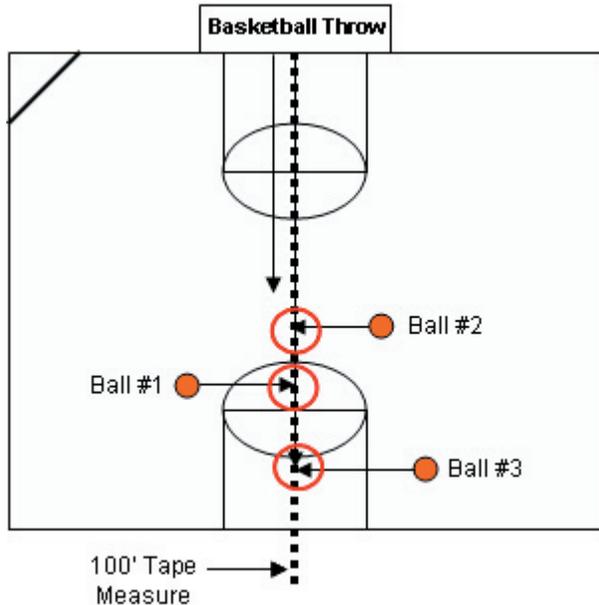


Figure 4

Cadence Pull-ups

Cadence pull-ups measure muscular strength and endurance of the shoulder and back.

The candidate must:

- ▼ Mount the bar with a pronated grip (back of the hands facing the candidate) with arms fully extended in a "dead" hang (Figure 5).
- ▼ Not swing, kick, or bicycle legs during upward movement.
- ▼ Raise the body until the jaw line is parallel to the ground and above the bar (Figure 6).
- ▼ Return to a 'dead hang' position to complete each repetition.
- ▼ Execute each repetition in cadence (command).

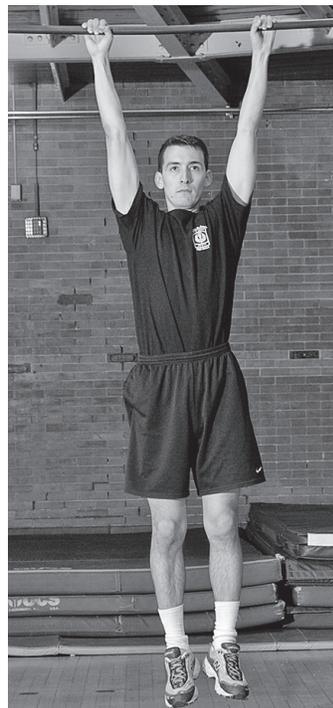


Figure 5



Figure 6

The test administrator will:

- ▼ Start the event at "5" minutes.
- ▼ Before giving the command "GO," ensure the candidate's elbows are fully extended and shoulders are relaxed in a "dead hang." If a candidate needs to use a chair to grip the bar, pull the chair away and take the time to ensure the candidate is in a straight-armed, relaxed shoulder "dead hang" before beginning. Do not allow candidates to jump off the ground or a chair to gain momentum for the first repetition. Require a short "dead hang" period before giving the command "GO."
- ▼ On the command "GO," start the event. When the candidate's chin rises above the bar and is parallel to the ground, verbally announce the repetition

number (e.g. 1, 2, 3, ...). The verbal repetition number is the candidate's cue to start the downward movement. When the candidate's arms are fully extended in a dead hang position, give the command "UP." At the end of two minutes, give the command "STOP" and record the number of correctly executed repetitions.

- ▼ May steady the candidate when they are at the resting/dead hang position by extending an "arm bar" in front of the candidate, but must not be touching the candidate when they are attempting a pull-up.
- ▼ Monitor each repetition to ensure the candidate's chin is parallel to the floor and 'over' the bar in the "up" position and the arms are fully extended in the "down" position. Repeat the repetition count for any pull-up attempt that does not meet the standards (e.g. 1..2..3..3..3..4).
- ▼ If a candidate reaches the maximum number of repetitions in less than two minutes (18 for men; 7 for women), give the command "STOP" and record the maximum score. Otherwise, at the end of two minutes, give the command "STOP" and record the number of correctly executed repetitions.

Flexed-Arm Hang

The flexed-arm hang is an alternative measure of muscular strength and endurance for women who are unable to execute one (1) correct cadence pull-up. If a woman can successfully perform one correct cadence pull-up, it is to her advantage on the scoring scale to take the cadence pull-up test. The scale score (0-100) for one cadence pull-up is higher than any length of flexed-arm hang.

The candidate must:

- ▼ Climb steps, mount box/platform, or ladder (or may be boosted up to the bar by an assistant) until her chin is above the bar (Figure 7).



Figure 7

- ▼ Mount the bar with a pronated grip (back of the hands facing the candidate) with chin parallel to the floor and above the bar.
- ▼ Step off the platform.
- ▼ Not swing, kick, or bicycle legs during the event.
- ▼ Maintain a flexed-arm position with chin above the bar and the jaw line parallel to the ground throughout the event (Figures 8a and 8b).

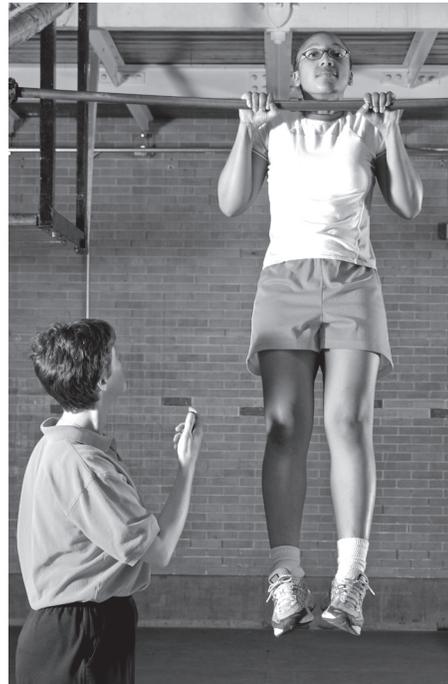


Figure 8a



Figure 8b

The test administrator will:

- ▼ Start the event at "5" minutes.
- ▼ Give the command "GO" to start the event and the stopwatch.
- ▼ Monitor body position to ensure the chin remains above the bar and the jaw line is parallel to the floor.
- ▼ Record the score in seconds/tenths of seconds.

Shuttle Run

The shuttle run measures the ability to move rapidly while changing directions, which is an indicator of anaerobic power, agility, and quickness.

The candidate must:

- ▼ Begin the test with his/her entire body behind the start/finish line (Figure 9).

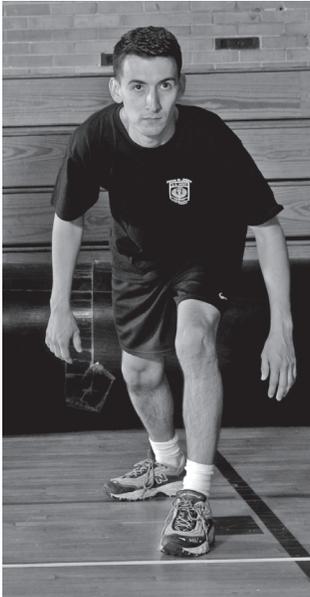


Figure 9

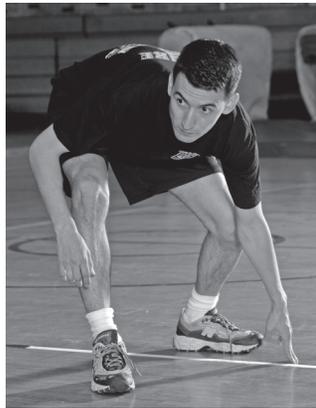


Figure 10

- ▼ On the command “GO,” the candidate will sprint 30 feet to the turn around line. His/her foot and hand must simultaneously touch the floor on or beyond the turn around line (Figure 10). The candidate will then sprint back to the start/finish line, touch on or beyond the start/finish line and turn, sprinting back to the 30-foot line. The candidate will touch on or beyond the turn around line and then sprint back across the start/finish line.
- ▼ Execute two trials with a one-minute rest between trials.

The test administrator will:

- ▼ Start the event at “10” minutes.
- ▼ Measure the shuttle run course of 30’ from the base-line.
- ▼ Give the command “GO” to start the event and start the stopwatch. Monitor the candidate to ensure he/she touches on or beyond the turn around line and the start/finish line with their hand and foot; failure to do so terminates the event.
- ▼ Stop the watch when the candidate crosses start/finish line on the second pass.
- ▼ Record the best of the two trials in seconds/tenths of seconds.

Modified Sit-ups

The modified sit-ups event measures abdominal/core body muscular strength and endurance.

The candidate must:

- ▼ Assume a supine (back on floor), bent-knee position (approximately 90°) on a mat with arms crossed, fingers extended and touching the top of the shoulder with shoulder blades touching the floor/mat (Figure 11).



Figure 11

- ▼ Upon the command “GO,” flex from the hip, raising the elbows so that they touch the front midpoint (or higher) of the thigh with the finger tips staying in contact with the top of the shoulders at all times (Figure 12); then recover by extending from the hip until the shoulder blades touch the floor/mat.

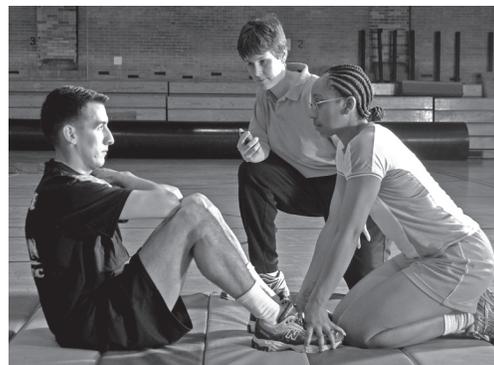


Figure 12

- ▼ Once the test begins, candidates may only rest in the “up” position with finger tips in contact with the shoulders at all times (Figure 13).



Figure 13

The test administrator will:

- ▼ Start the event at “15” minutes.
- ▼ Monitor the “start position” to ensure the candidate’s shoulder blades are touching the mat, fingers are touching the shoulders, knees are bent approximately 90°, and an assistant is properly holding the candidate’s feet (hands only on top of each ankle or foot).
- ▼ Give the command “GO” and start the stopwatch for the 2-minute trial.
- ▼ Verbally count one repetition each time the candidate’s elbows touch the thigh. (e.g. 1...2...3...).
- ▼ Monitor body position making sure during each repetition the buttocks stay in contact with the mat, knees are bent approximately 90°, fingers remain in contact with shoulders, elbows make contact with the mid-thigh or higher, and shoulder blades touch the floor/mat.
- ▼ Repeat the previous score count for any repetition that does not meet the criteria listed above. (e.g. 51...52...52...52...53...54...)
- ▼ Terminate the modified sit-up event if the candidate fails to continuously attempt to execute a repetition or rests in the “down” position.
- ▼ At the 2-minute mark, give the command “STOP” and record the number of correctly executed repetitions.
- ▼ If a candidate reaches the maximum number of repetitions in less than two-minutes (95 for men and women), end the event and record the maximum score. Otherwise, at the end of 2-minutes, give the command “STOP” and record the number of correctly executed repetitions.

Push-ups:

Push-ups measure upper body muscular endurance.

The candidate must:

- ▼ Assume a prone (belly towards the ground) position supported on one knee on a mat or floor (Figure 14).



Figure 14



Figure 15



Figure 16

- ▼ On the command “GET SET,” assume the front-leaning rest position (arms extended) by placing your hands just outside the shoulders with fingers facing forward; your feet may be together or up to 12 inches apart; when viewed from the side, your body will form a straight line from your shoulders to your ankles (Figure 15).
- ▼ On the command “GO,” begin the push-up event by bending your elbows and lowering your entire body as a single unit until your upper arms are at least parallel to the ground (90°); return to the starting position by extending your arms and raising your entire body as a single unit until your arms are fully extended (Figure 16).
- ▼ May rest in the “up” position, flexing or bowing the back as long as he/she does not lift a hand/foot off the floor, or touch any other body part on the floor. Must return to the straight body, front leaning rest position before attempting another repetition.

The test administrator will:

- ▼ Start the event at “20” minutes.
- ▼ Give the command “GO” and start the stopwatch for the 2-minute trial.
- ▼ Monitor each repetition making sure the body remains rigid in a generally straight line, moving as a single unit; the upper arm is parallel to the floor in the “down” position; and the arms come to full extension in the “up” position.
- ▼ Verbally count the repetition number each time the candidate returns to the “up” position. Repeat the previous score for any repetition that does not meet the criteria listed above. (e.g. 1..2..2..3..4..)
- ▼ Terminate the event if the candidate lifts a hand or foot off the ground or touches the ground at which any body part other than hands and feet.
- ▼ If a candidate reaches the maximum number of repetitions in less than two-minutes (75 for men; 50 for women), end the event and record the maximum score. Otherwise, at the end of 2-minutes, give the command “STOP” and record the number of correctly executed repetitions.

1-Mile Run

The one-mile run measures aerobic capacity or the ability to use oxygen to do physical work.

The candidate must:

- ▼ Assume a starting position behind the one-mile start line (Figure 17).
- ▼ On the command “GO,” the candidate will run continuously for one-mile (walking is allowed although strongly discouraged).

The test administrator will:

- ▼ Start the event at “30” minutes.
- ▼ Certify the one-mile run distance.
- ▼ Give the command “GO” and start the stopwatch.
- ▼ Monitor the candidate to make sure he/she does not:
 - Receive physical help during the event (pushed, pulled, picked up, or carried).
 - Leave the designated running course for any reason.
- ▼ Not permit pacing by another person.
- ▼ Stop the watch as the candidate crosses the finish line and record the score in minutes/seconds. (e.g. 5:32).



Figure 17