

CPAT Information

Candidate Physical Ability Test (C.P.A.T.)

The Sun Lakes Fire District will not be conducting a CPAT. Proof of successful completion of a Candidate Physical Ability Test (CPAT) from a licensed agency with the past year is required prior to receiving an invitation to test. It is your responsibility to provide proof of successful completion of the CPAT. To learn more about registering for a CPAT course or scheduling to take the CPAT test, please contact the following local community colleges or the National Testing Network, see below:

Main college website for all community colleges is:

http://www.mc.maricopa.edu/dept/d12/district_cpat/index.html

Specific community college websites:

Glendale Community College: 623-845-3441

http://www.gc.maricopa.edu/fsc/advisement_registration.htm

Mesa Community College: 480-461-6307

<http://www.mc.maricopa.edu/dept/d12/fsc/cpat/>

Paradise Valley Community College: 602-787-7000

<http://www2.pvc.maricopa.edu/fire/cpatinfo.html>

Phoenix College: 602-285-7526

<http://www.pc.maricopa.edu/index.php?page=29&subpage=613&sublink=617>

National Testing Network:

<http://www.nationaltestingnetwork.com>

The Fire Service Joint Labor Management Wellness/Fitness Initiative Candidate Physical Ability Test® (CPAT) consists of eight separate events. The CPAT is a sequence of events requiring the candidate to progress along a predetermined path from event to event in a continuous manner. This test was developed to allow fire departments a means for obtaining pools of trainable candidates who are physically able to perform essential job tasks at fire scenes. See below for descriptions and pictures of the eight separate events.

- STAIR CLIMB
- HOSE DRAG
- EQUIPMENT CARRY
- LADDER RAISE AND EXTENSION
- FORCIBLE ENTRY
- SEARCH
- RESCUE
- CEILING BREACH AND PULL

This is a pass/fail test based on a validated maximum total time of 10 minutes and 20 seconds.

Event 1: Stair Climb



Using a StepMill stair-climbing machine, this event is designed to simulate the critical task of climbing stairs in full protective clothing while carrying a high-rise pack (hose bundle) and firefighter equipment. This event challenges aerobic capacity, lower body muscular endurance and balance.

Participants wear a 12.5-pound weight on each shoulder to simulate the weight of a high-rise pack. Immediately following a 20-second warm-up period at a rate of 50 steps per minute, the timed part of the test starts as indicated by a proctor. There is no break in time between the warm-up period and the actual timing of the test. During the warm-up period, dismounting, grasping the rail, or holding the wall to establish balance and cadence is permitted. The timed part of the test lasts three (3) minutes at a stepping rate of 60 steps per minute.

Failure can occur by falling or dismounting three times during the warm-up period, or by falling or dismounting the StepMill after the timed CPAT begins. During the test, the participant is permitted to touch the wall or handrail for balance only momentarily. Violation of this rule more than twice during the three-minute timed period constitutes failure.

Event 2: Hose Drag



This event is designed to simulate the critical tasks of dragging an uncharged hoseline from a fire apparatus to a structure and pulling an uncharged hoseline around obstacles while remaining stationary. This event challenges aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic capacity. The hoseline is grasped and placed over the shoulder or across the chest. While walking or running, the participant drags



the hose 75 feet to a pre-positioned drum, makes a 90° turn, and continues an additional 25 feet. After stopping in the marked box, the candidate drops to at least one knee and pulls the hoseline until the 50-foot mark crosses the finish line.

During the hose drag, failure results if the participant does not go around the drum or goes outside of the marked path. During the hose pull, a warning is given if at least one knee is not kept in contact with the ground or if the knees go outside the marked boundary line; a second warning constitutes failure.

Event 3: Equipment Carry



This event uses two saws and a tool cabinet replicating a storage cabinet on a fire truck. It simulates the critical tasks of removing power tools from a fire apparatus, carrying them to the emergency scene, and returning the equipment to the fire apparatus. This event challenges aerobic capacity, upper body muscular strength and endurance, lower body muscular endurance, grip endurance, and balance. The candidate must remove the two saws from the tool cabinet, one at a time, and place them on the ground. Then he/she picks up both saws (one in each hand) and carries them while walking 75 feet around a drum, then back to the starting point. Placing the saw(s) on the ground to adjust a grip is permitted. Upon return to the tool cabinet, the saws are placed on the ground, and then picked up one at a time, and replaced in the cab. Dropping either saw on the ground during the carry will result in immediate failure. A warning will be given for running; a second warning constitutes a failure.

Event 4: Ladder Raise and Extension



This event, which uses two 24-foot aluminum extension ladders, is designed to simulate the placement of a ground ladder at a fire structure and extending it to the roof or window. This event challenges aerobic capacity, upper body muscular strength, lower body muscular strength, balance, grip strength, and anaerobic endurance. The participant must walk to the top rung of one ladder, lift the unhinged end from the ground, and walk it up hand over hand until it is stationary against the wall. Then he/ she immediately proceeds to the other pre-positioned ladder, stands with both feet within the marked box, extends the fly section by pulling the halyard rope hand over hand until it hits the stop, then lowers it in back to the starting position.

Immediate failure will result if the ladder is allowed to fall to the ground, if control is not maintained in a hand-over-hand manner, or if the rope halyard slips in an uncontrolled manner.

Missing any rung during the raise or allowing the feet to be placed outside of the boundary results in a warning; a second warning constitutes a failure.

5: Forcible Entry



This event uses a mechanized device that measures cumulative force and a 10-pound sledgehammer. It simulates the critical tasks of using force to open a locked door or to breach a wall. This event challenges aerobic capacity, upper body muscular strength and endurance, lower body muscular strength and endurance, balance, grip strength and endurance, and anaerobic endurance. For this event, the candidate uses the sledgehammer to strike a measuring device in a target area until the buzzer activates. Feet must be kept outside the

toe-box at all times. Failure results if the participant does not maintain control of the sledgehammer and releases it from both hands while swinging. A warning is given for stepping inside the toe-box; a second warning constitutes a failure.

Event 6: Search



This event uses an enclosed search maze that has obstacles and narrowed spaces. It simulates the critical task of searching for a fire victim with limited visibility in an unpredictable area. This event challenges aerobic capacity, upper body muscular strength and endurance, agility, balance, anaerobic endurance and kinesthetic awareness. For this event, the candidate crawl through a tunnel maze that is approximately 3 feet high, 4 feet wide, 64 feet in length, and has two 90° turns and multiple obstacles. In addition, there are two locations where the

dimensions of the tunnel are reduced. If at any point the participant chooses to end the event, he/she can call out or rap sharply on the wall or ceiling and will be assisted out of the maze, although doing so will result in failure of the evolution. Failure also will occur if the candidate requests assistance that requires the opening of the escape hatch or opening of the entrance/exit covers.

Event 7: Rescue



This event uses a weighted mannequin equipped with a shoulder harness to simulate the critical task of removing a victim or injured firefighter from a fire scene. This event challenges aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. The participant grasps a 165-pound mannequin by the handle(s) on the shoulder(s) of the harness (one or both handles are permitted), drags it 35 feet, makes a 180° turn around a pre-positioned drum, and continues an additional 35 feet to the finish line. Grasping or resting on the drum is not permitted, but the mannequin may touch the drum. The candidate is permitted to drop and release the mannequin to adjust his/her grip. The entire mannequin must be dragged across the finish line. Grasping or resting on the drum at any time results in a warning; a second warning constitutes a failure.

Event 8 – Ceiling Breach and Pull: This event uses a mechanized device that measures overhead push and pull forces and a pike pole. The pike pole is a commonly used piece of firefighting equipment that consists of a six-foot long pole with a hook and point attached to one end. This event simulates the critical task of breaching and pulling down a ceiling to check for fire extension. It challenges aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. After removing the pike pole from the bracket, the participant places the tip of the pole on a 60-pound hinged door in the ceiling and pushes it three times while standing within the established boundary. Then, the pike pole is hooked to a 80-pound ceiling device and pulled five times. Each set consists of three pushes and five pulls; the set is repeated four times. A pause for grip adjustment is allowed. Releasing one's grip or allowing the pike pole handle to slip does not result in a warning or constitute a failure. The candidate may re-establish his/her grip and resume the event. If a repetition is not successfully completed, the proctor calls out "MISS" and the apparatus must be pushed or pulled again to complete the repetition. This event and the total test time ends when the final pull stroke repetition is completed and the proctor calls "TIME." A warning is given for dropping the pike pole to the ground or for feet straying outside the boundaries; a second warning of either violation constitutes a failure.



Summary

In these events, the candidate wears a 50-pound vest to simulate the weight of self-contained breathing apparatus (SCBA) and firefighter protective clothing. An additional 25 pounds, using two 12.5-pound weights that simulate a high-rise pack (hose bundle), is added to the shoulders for the stair climb event.

Throughout all events, the participant must wear long pants, a hard hat with chinstrap, work gloves and footwear with no open heel or toe. Watches and loose or restrictive jewelry are not permitted.

All props were designed to obtain the necessary information regarding physical ability. The tools and equipment were chosen to provide the highest level of consistency, safety and validity in measuring the candidate's physical abilities.

The events are placed in a sequence that best simulates fire scene events while allowing an 85-foot walk between events. To ensure the highest level of safety and to prevent exhaustion, no running is allowed between events. This walk allows approximately 20 seconds to recover and regroup before each event.

To ensure scoring accuracy, two stopwatches are used to time the CPAT. One stopwatch is designated as the official test time stop-watch, the second is the backup stop watch. If mechanical failure occurs, the time on the backup stopwatch is used. The stopwatches are set to the pass/fail time and countdown from 10 minutes and 20 seconds. If time elapses prior to the completion of the test, the test is concluded and the participant fails the test.