

# Battle Creek Fire Department

## Physical Ability Test

### Candidate Guide

## 2025



Rev. 4/25

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# BCFD Physical Agility Test

## Introduction

The Battle Creek Fire Department PAT is based on the “Candidate Physical Agility Test” or “CPAT” developed by the International Association of Firefighters in partnership with the International Association of Fire Chiefs. Though there are minor differences between the two tests, please utilize the “CPAT Candidate Preparation Guide” found in Appendix B to assist you in preparing for the test.

**It is strongly recommended that candidates attend one of several practice sessions in advance of their test date.** Practice sessions are currently scheduled for

April 12<sup>th</sup> 2025

April 18<sup>th</sup> 2025

Hosted at Full Blast, 35 W. Hamblin Battle Creek, MI 49017. Practice times each day will be from 9 A.M. to 8 P.M.

If at any time the candidate passes the physical ability test during practice, this will be counted as credit toward a passed agility test and it will not need to be retaken.

The PAT consists of 8 separate events and is a PASS/FAIL test. This test is a sequence of events that requires the candidate to progress along a predetermined path from event to event in a continuous manner. **To successfully complete the test, an applicant must complete all (8) evolutions in 10 minutes and 20 seconds.** The time starts at the beginning of the first evolution and ends at the completion of the last evolution. Between each event, there will be an 85 foot walk which will allow the candidate approximately 20 seconds to recover between events.

Throughout all events candidate will wear a 50- pound weighted vest to simulate the weight of self-contained breathing apparatus (SCBA) and Firefighter protective clothing. In addition, candidates shall also wear work gloves and helmet with chin strap. **Candidates should arrive wearing shirt, long pants, and closed-toe shoes. Gym attire is acceptable.** Watches and loose or restrictive jewelry are not permitted.

# Physical Ability Test

## Evolutions Guide

### Evolution 1- Stair Climb

The candidate will wear two 12.5lb weights on the shoulders in addition to the 50lb weighted vest. The candidate will get a 20 second warm-up at a stepping rate of 50 steps per minute. During this time the candidate is allowed to dismount, or grasp the rail to establish balance and cadence. If the candidate falls or steps off of the step mill during the warm-up period, the candidate is required to remount the step mill and restart the entire 20 second warm up period. There is no break in between the warm up period and start of the test. The timing of the test begins at the end of the warm up period when the proctor calls out "start." For the test, the candidate is required to walk on the step mill at a stepping rate of 60 steps per minute for 3 minutes.

- The following is allowed
  - The candidate is allowed to **briefly** touch the handrails or wall for balance.
  - The candidate is given up to two warnings for grabbing the handrails or bearing their body weight on the handrails/walls.
  - The candidate is allowed to restart the warm up period twice.
- Automatic failures
  - The candidate falls or voluntarily dismounts the step mill three times during the warm up.
  - The candidate falls or voluntarily dismounts the step mill after the start of the test.
  - The candidate commits a third infraction for grasping the handrails or bearing weight on the handrails after the start of the test.

### Evolution 2- Hose Drag

The candidate will grasp an automatic nozzle attached to 200ft of 1 ¾" hose. The candidate will place the hose over their shoulder or across the chest, not exceeding the 8ft mark on the hose. The candidate will drag the hose 75 ft to a prepositioned drum, make a 90 degree turn around the drum and continue an additional 25ft. The candidate then stops within the marked 5x7ft box, will drop to at least one knee and then will pull the hose until the hose's 50 ft mark is across the finish line

- The following is allowed
  - The candidate is given one warning to keep one knee down.
  - The candidate is given one warning to keep the knees in bounds.
  - The candidate is given one warning for taking one step out of the box.
- Automatic failures
  - The candidate fails to go around the drum
  - The candidate travels outside of the marked path
  - The candidate takes two steps out of the back of the box
  - The candidate commits a second infraction for not keeping one knee in contact with the ground.
  - The candidate commits a second infractions for knees being outside of the marked boundary.

### **Evolution 3- Equipment Carry**

During this event, the candidate removes a bundle of hose and a fire extinguisher from the platform, one at a time, and places them on the ground. The candidate then picks up both items. The hose bundle is put over the shoulder and the extinguisher is carried. The candidate then walks 75 ft. around the prepositioned drum, then back to the starting point. The candidate is permitted to place the items on the ground and adjust the grip. Upon return to the platform, the candidate places both items on the ground, then picks up each item one at a time, and replaces each on the platform.

- The following is allowed
  - The candidate is given one warning for running.
  - The candidate is allowed to set the tools on the ground to adjust and re-establish the grip.
- Automatic failures
  - The candidate drops either item during the carry.
  - The candidate commits a second infraction for running with the items.
  - The candidate does not place both items on the ground after taking them off of the platform and before putting them back on the platform.

### **Evolution 4- Ladder Raise & Extension**

During this event, the candidate walks to the top rung of the 24 foot ladder, lifts the first rung from the ground, and walks it up until it is stationary against the wall. This must be done in a hand over hand fashion, using each rung until the ladder is stationary against the wall. The candidate must not use the ladder rails to raise the ladder. The candidate will then remain with both feet in the marked box of 36x36 inches and will extend the fly section hand over hand until it hits the stop. The candidate then lowers the fly section hand over hand in a controlled fashion to the starting position. The candidate then lowers the ladder back to the ground using hand over hand and not missing any rungs to the starting position on the ground.

- The following is allowed
  - The candidate is give one warning for missing any rung during the raise.
  - The candidate is give one warning for boundary violation during the ladder extension.
- Automatic failures
  - The candidate commits a second infraction for missing any rung during the raise.
  - The candidate allows the ladder to fall to the ground during the raise.
  - The candidate commits a second infraction for not remaining within the marked boundary during the ladder extension.
  - The candidate does not control the halyard in a hand over hand manner.
  - The candidate allows the halyard to slip in an uncontrolled manner.

### **Evolution 5- Keiser Sled (Forcible Entry)**

The candidate, utilizing the provided sledgehammer, must strike the Keiser sled in a downward motion. The candidate will continue striking the sled until it has moved the required distance. The candidate will be told when to stop. The candidate will then place the sledgehammer on the ground.

- The following is allowed
  - Repositioning grip on the hammer.
  - Repositioning stance on the sled.

- Automatic failures
  - The candidate throws or drops the hammer during the test.
  - The candidate steps off of the sled during the test.

### **Evolution 6- Search**

The candidate begins to crawl up the prepositioned stairs and through a tunnel maze that is approximately 60 feet in length with two 90 degree turns. The movement is monitored as the candidate advances through the tunnel. If for any reason, the candidate chooses to end the event, the candidate calls out, and the candidate is assisted out.

- The following is allowed
  - The candidate can return in to the tunnel if they exit through the entrance
- Automatic failures
  - The candidate requests assistance from the proctor in getting out of the tunnel.

### **Evolution 7- Rescue**

The candidate grasps a 185 lb mannequin by the handles on the shoulders of the harness (either by one or both handles are permitted), drags it 35 feet to a pre-positioned cone, makes a 180 degree turn around the drum, and continues an additional 35 feet to the finish line. The candidate is not permitted to move the cone and must make a wide enough turn around the cone to prevent this. The candidate is permitted to lower the mannequin to the ground to adjust their grip. The entire mannequin must be dragged past the marked finish line.

- The following is allowed
  - The candidate is permitted to grab either one or both handles when dragging the mannequin.
  - The candidate is permitted to lower the mannequin to the ground to adjust their grip.
- Automatic failures
  - The candidate does not make a wide enough turn around the cone and moves the cone.

### **Evolution 8- Ceiling Breach and Pull**

The candidate grasps the pike pole and steps back to marked box on the floor. The candidate will reach as high as possible and pull down until their highest hand is level with their chin. The candidate must complete (30) pulls. The proctor will count correct pulls aloud. The candidate is permitted to stop and, if needed, to adjust their grip. Releasing the grip or slipping from pike pole handle, without the pike pole falling to the ground, does not result in a warning or constitute a failure. If the candidate does not successfully complete a repetition (i.e. complete the up and down motion), the proctor calls out “MISS” and the candidate.

- The following is allowed
  - The candidate receives one warning for dropping the pike pole on the ground.
  - The candidate receives one warning for stepping outside the box.
  - The candidate is permitted to stop and re-establish their grip.
- Automatic failures
  - The candidate commits a second infraction for dropping the pike pole.
  - The candidate commits a second infraction for stepping outside of the marked box.

The candidate will be directed to walk to a predetermined start point, around a cone and back to the start point. The test will end when the candidate crosses the marked line and the proctor states "TIME."

Upon completion of the timed portion of the physical agility test, candidates shall have their blood pressure and heart rate documented by BCFD Personnel or a representative

# **Analysis of Test Evolutions**

## **Evolution 1- Stair Climb**

Designed to simulate the critical tasks of climbing stairs in full personal protective clothing while carrying a high rise pack (hose bundle) and climbing stairs in full protective clothing c carrying fire fighter equipment. This event challenges the candidate's aerobic capacity, lower body muscular endurance and ability to balance. This event affects the aerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, and lower back stabilizers.

## **Evolution 2- Hose Drag**

Designed to simulate the critical tasks of dragging and uncharged hose line from the fire apparatus to the fire occupancy and pulling an uncharged hose line around obstacles while remaining stationary. This event challenges the candidate's aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects the aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, lower back stabilizers, biceps, deltoids, upper back, and muscles of forearm and hand (grip).

## **Evolution 3- Equipment Carry**

Designed to simulate 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 the candidate's aerobic capacity, upper body muscular strength and endurance, lower body muscular endurance, grip endurance, and balance. This event affects the aerobic energy system as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

## **Evolution 4- Ladder Raise & Extension**

Designed to simulate the critical tasks of placing a ground ladder at a structure fire and extending the ladder to the roof or window. This event challenges the candidate's aerobic capacity, upper body muscular strength, lower body muscular strength, balance, grip strength, and anaerobic endurance. This event affects the aerobic and anaerobic energy systems as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

## **Evolution 5- Keiser Sled**

Designed to simulate the critical tasks of using force to open a locked door or to breach a wall. This event challenges the candidate's aerobic capacity, upper body muscular strength and endurance, balance, grip strength and endurance, and anaerobic endurance. This event affects the aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, glutes, triceps, upper back, trapezius, and muscles of the forearm and hand (grip).



### **Evolution 6- Search**

Designed to simulate the critical task of searching for a fire victim with limited visibility in an unpredictable area. This event challenges the candidate's aerobic capacity, upper body muscular strength and endurance, agility, balance, anaerobic endurance, and kinesthetic awareness. This event affects the aerobic and anaerobic energy systems as well as the following muscle groups: muscles of the chest, shoulder, triceps, quadriceps, abdominals, and lower back.

### **Evolution 7- Rescue**

Designed to simulate the critical task of removing a victim or injured partner from a fire scene. This event challenges the candidate's aerobic capacity, upper and lower body muscular strength and endurance, grip strength, and endurance, and anaerobic endurance. This event affects the aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, trapezius, deltoids, latissimus dorsi, biceps, and muscles of the forearm and hand (grip).

### **Evolution 8- Ceiling Pull**

Designed to simulate the critical task of pulling down ceiling to check for fire extension. This event challenges the candidate's aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects the aerobic and anaerobic quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, deltoids, trapezius, biceps and muscles of the forearm and hand (grip).

## **Appendix A: Contact Information**

### FD Candidate Testing Information

Victoria Houser- City Clerk

269-966-3355 x1214

[vlhouser@battlecreekmi.gov](mailto:vlhouser@battlecreekmi.gov)

### Fire Department General Information

Christina Dawe- Executive Assistant

269-966-3519

[cldawe@battlecreekmi.gov](mailto:cldawe@battlecreekmi.gov)

Lt. Justin Coffey

Training Officer

269-966-3462

[jscoffey@battlecreekmi.gov](mailto:jscoffey@battlecreekmi.gov)

### **PAT Candidate Challenge Procedure**

In the event a candidate feels they were unjustly disqualified from the PAT, the candidate shall submit written documentation to the Fire Chief, either in person or via email, within 72 hours of their scheduled PAT test. Upon receipt of the written complaint, the Fire Chief shall make a final determination within 14 days.

Interim Chief

Shannon Bagley

269-966-3519

[sdbagley@battlecreekmi.gov](mailto:sdbagley@battlecreekmi.gov)

# APPENDIX B

## CPAT CANDIDATE PREPARATION GUIDE

The job of a fire fighter is one of the most physically demanding jobs in North America. It requires high levels of cardiopulmonary endurance, muscular strength and muscular endurance. The Candidate Physical Ability Test consists of eight critical physical tasks that simulate actual job duties on the fireground. This test is physically demanding and requires that you be physically fit to be successful. This guide was developed to assist you with physically preparing yourself for the test.

### ■ What is physical fitness in the Fire Service?

Physical fitness is the ability to perform physical activities, such as job tasks, with enough reserve for emergency situations and to enjoy normal activities when off duty.

### ■ What are the major areas of fitness?

The major areas of physical fitness include:

- flexibility
- cardiopulmonary endurance
- muscular strength
- muscular endurance

Body composition is also considered an area of physical fitness. It should be noted that excess body fat increases the workload placed upon the body and decreases the body's ability to dissipate heat.

A proper physical fitness program should be specific for the job of a fire fighter. It should include all of the major areas of physical fitness mentioned above and be a total body program. Although this is best accomplished at a gym with an array of equipment, this guide also includes exercises that require little or no equipment.

### ■ Hydration

Proper hydration is critical. All candidates should drink water before exercise, during exercise and after exercise. Additionally, you should drink at least one liter of water one hour before your CPAT.

### ■ Warm-up & Flexibility

A warm-up serves several functions, including:

- increased blood flow to working muscles and joints
- decreased likelihood of injury
- decrease in pre-event tension
- possible improved performance
- improved flexibility

A proper warm-up should begin with a few of minutes of the same type of activity you are about to do at a very light exertion level. For example, if you are preparing to go running you should run in place or for a short distance at a very easy pace.

The next step is to stretch to improve flexibility and further your warm-up. There are two phases of stretching. The first phase is the easy stretch. In this phase, you should hold the stretch for 10 seconds in a range of motion that produces only mild tension. This prepares you for the second phase, the developmental stretch. In this phase, you should move slightly farther to the point where you feel a little more tension. This should be held for another 10 seconds.

### ■ Flexibility

When stretching follow these basic rules:

- Stretch slowly
- No bouncing
- No pain
- Stretching is not competitive
- Breathe slowly to help you relax
- Stretching should feel good

#### 1. Knee to Chest

Glutes, Low Back, Hamstrings, Quadriceps

- Lay flat on back with knees bent.
- Grab under right thigh and pull knee toward chest until you feel mild tension.
- Hold for 10 seconds, then pull slightly farther until you feel slightly more tension.



- Hold this position for 10 seconds.
- Repeat with other leg.
- Repeat sequence 2 or 3 times.

#### 2. Knee to Chest - Leg Straight

Glutes, Low Back, Hamstrings, Quadriceps

- Lay flat on back with knees bent.
- Grab under right thigh and straighten right leg. Do not lock knee.
- Hold for 10 seconds, then pull slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.



- Repeat with other leg.
- Repeat sequence 2 or 3 times.

### 3. Knee to Chest –Diagonal

Glutes, Low Back, Hamstrings, Quadriceps, Piriformis

- Lay flat on back with knees bent.
- Grab under right thigh and pull right knee toward left chest until you feel mild tension.
- Hold for 10 seconds, then pull slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Repeat with other leg.
- Repeat sequence 2 or 3 times.



### 4. Leg Cross

Piriformis, Glutes, Low Back

- Lay flat on back with knees bent.
- Place your right outer ankle on the top of right left thigh.
- Grab under left thigh and pull left knee toward chest until you feel mild tension.
- Hold for 10 seconds, then pull slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Repeat with other leg.
- Repeat sequence 2 or 3 times



### 5. Side Quadricep Stretch

Quadriceps, Hip Flexors, Abdominals



- Lay on left side.
- Grab right shin, just above your right ankle.
- Slowly pull right foot toward right buttocks while pushing right hip forward.
- At the same time, push right hip forward.
- Hold for 10 seconds, and then pull slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Repeat with other leg.
- Repeat sequence 2 or 3 times.

### 6. Butterfly Stretch

Groin, Low Back

- Sit upright with the bottoms of feet touching each other.
- Bend forward at the waist to a position where you feel mild tension.
- Elbows can be used to push down on thighs if you want more stretch.
- Hold for 10 seconds, then pull slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Repeat sequence 2 or 3 times.



### 7. Straddle

Stretch Groin, Hamstrings, Low Back

- Sit upright with legs straight.
- Spread legs as far as you can comfortably can.
- Keeping legs straight, but not locking knees, bend forward at the waist.
- Hold for 10 seconds then push down slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Return to starting position.
- Repeat sequence, but this time take chest toward left knee.
- Return to the starting position and repeat sequence toward right knee.
- Repeat entire sequence 2 or 3 times.



### 8. Cross Over Stretch

Glutes, Iliotibial Band

- Sit with legs straight in front of you.
- Bend right leg and cross it over so you can grab around the outside of right thigh.
- Slowly pull bent right leg toward chest until you feel mild tension.



- Hold for 10 seconds then push slightly farther until you feel slightly more tension.
- Hold this position for 10seconds.
- Return to starting position and switch legs.
- Repeat sequence on opposite leg.
- Repeat sequence 2 or 3 times.



## ■ 9. Calf Stretch

Calves

- Squat down on ground with right foot slightly in front of left.
- Grasp right shin and rock forward until you feel mild tension.
- Hold for 10 seconds, then push slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Repeat sequence on opposite leg.
- Repeat sequence 2 or 3 times.



## ■ 10. Upper Back

Stretch Upper back, Posterior Deltoids

- Sit with legs straight in front.
- Twist your upper back crossing left arm across chest and place right hand on the floor.
- Slowly twist until you feel mild tension.
- Hold for 10 seconds, then twist slightly farther until you feel slightly more tension.
- Hold this position for 10 seconds.
- Return to starting position and twist to the left side.
- Repeat sequence 2 or 3 times.



## ■ 11. Chest Stretch

Chest, Shoulders, Biceps

- Stand with right shoulder against a wall.
- Place right palm on the wall.
- Slowly turn your body away from the wall until you feel mild tension.
- Hold for 10 seconds, then twist slightly farther until you feel slightly more tension.
- Return to starting position and repeat sequence with left arm.
- Repeat sequence 2 or 3 times.



## ■ 12. Triceps Stretch

Triceps, Posterior Deltoids

- Stand upright and extend right arm over head.
- Grab right elbow with left hand and place right hand on right shoulder blade.
- Slowly push right elbow backward until mild tension is felt.
- Hold for ten seconds, then



push slightly farther until you feel slightly more tension.

- Return to starting position and repeat sequence with left arm.
- Repeat sequence 2 or 3 times.

## ■ 13. Forearm Stretch

Forearms

- Stand upright and grab right fingers with left hand.
- Slowly fold right wrist backwards until mild tension is felt.
- Hold for ten seconds, then push slightly farther until you feel slightly more tension.
- Repeat sequence, this time folding wrist forwards.
- Return to starting position and repeat sequence with left arm.
- Repeat entire sequence 2 or 3 times.



## General Principles of Exercise

To maximize the results from your training program, several exercise principles should be understood.

### ■ Adaptation

Adaptation means that the body can adjust to any overload as long as it is done in small increments. The amount of progress the body can make depends on adequate rest, consistency of workouts, adequate nutrition, and genetic makeup.

### ■ Overload

Overload, in exercise training programs, means that a training program causes the body to adapt only when the demands are greater than what the body is accustomed to doing. This does not mean that the overload is greater than your maximum; rather overload is generally greater than 75% of your maximal effort.

### ■ Progression

The principle of progression states that as the body adapts to the exercise program you must gradually increase the overload to continue to adapt. It is critical that all progressions are gradual and small in nature to prevent overloading the body's ability to recover.

### ■ Specificity

Specificity of training is the principle that your body will adapt to whatever exercises you perform. This means that if you only perform bench presses, your body will not adapt to sit-ups. It may, therefore, be beneficial for you to alter your training to prepare for the Candidate Physical Ability Test.

### ■ Over-Training

Over-training addresses the body's need for adequate rest and nutrition following exercise to recuperate before the next exercise session. If recuperation is not adequate, over-training will occur. Signs of over training include: increased injury rate, increased resting heart rate, muscle soreness that does not subside after 48 hours, apathy, insomnia, loss of appetite, lack of adaptation to exercise, and loss of strength. Over-training must be avoided.

### ■ Balance

When developing a strength training program, it is important to balance muscle development by including exercises that train all major muscles groups of the body. This means that if the chest is trained so must the back; similarly if the upper body is trained so must the legs. When this principle is not followed, joints become imbalanced, and injuries occur.

### ■ Cardiopulmonary Endurance Program

Cardiopulmonary endurance is the ability of the cardiovascular and respiratory systems to deliver oxygen to working muscles. It consists of both aerobic and anaerobic energy systems.

### ■ Aerobic Fitness

During aerobic activities, the intensity of the exercise is low enough for the cardiopulmonary system to meet the oxygen demands of the working muscles. Aerobic activities include bicycling, hiking, swimming, climbing stairs, and running when performed at a low enough intensity.

### ■ Anaerobic Fitness

During anaerobic activities, the intensity of exercise is so high that the working muscle's demands for oxygen exceed the cardiopulmonary system's ability to deliver it. Because adequate oxygen is not available, waste products accumulate. This type of intense activity can only be short in duration. An example of an anaerobic activity is sprinting.

### ■ The CPAT Training Program

The CPAT Training program consists of two training programs. The first program is the aerobic training program and the interval program. Both of these programs complement each other and improve your aerobic and anaerobic fitness specific to the Candidate Physical Ability Test.

### ■ Aerobic Training

The cardiopulmonary endurance program should begin at a level that is considered "moderately difficult" but not "difficult." Your intensity should not be so high that you cannot speak during the exercise. The program below consists of a series of progressive levels. As you adapt to each step, you should move up to the next level. This program should be done 3 to 5 days per week.

### ■ Interval Training

Interval training involves a repeated series of exercise activities interspersed with rest or relief periods. This is an excellent tool for improving both aerobic and anaerobic endurance. In this program running intervals are performed on Tuesdays and Thursdays. It is important that interval days have at least one day of slow easy running between them. This provides the recovery necessary to prevent over training.

## Phase One

	Monday	Tuesday	Wednesday	Thursday	Friday
Level 1	Run 1 mile at an easy pace. Be able to talk the entire time.	Run 30 seconds at a somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1 mile.	Run 1 mile at an easy pace. Be able to talk the entire time.	Run 30 seconds at a somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1 mile.	Run 1 mile at an easy pace. Be able to talk the entire time.
Level 2	Run 1.5 miles at an easy pace. Be able to talk the entire time.	Run 30 seconds at a somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1.5 miles.	Run 1.5 miles at an easy pace. Be able to talk the entire time.	Run 30 seconds at a somewhat hard pace then walk for 30 seconds. Repeat this for a total of 1.5 miles.	Run 1.5 miles at an easy pace. Be able to talk the entire time.
Level 3	Run 2 miles at an easy pace. Be able to talk the entire time.	Run 60 seconds at a somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2 miles.	Run 2 miles at an easy pace. Be able to talk the entire time.	Run 60 seconds at a somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2 miles.	Run 2 miles at an easy pace. Be able to talk the entire time.
Level 4	Run 2.5 miles at an easy pace. Be able to talk the entire time.	Run 60 seconds at a somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2.5 miles.	Run 2.5 miles at an easy pace. Be able to talk the entire time.	Run 60 seconds at a somewhat hard pace then walk for 60 seconds. Repeat this for a total of 2.5 miles.	Run 2.5 miles at an easy pace. Be able to talk the entire time.
Level 5	Run 3 miles at an easy pace. Be able to talk the entire time.	Run 90 seconds at a somewhat hard pace then walk for 90 seconds. Repeat this for a total of 3 miles.	Run 3 miles at an easy pace. Be able to talk the entire time.	Run 90 seconds at a somewhat hard pace then walk for 90 seconds. Repeat this for a total of 3 miles.	Run 3 miles at an easy pace. Be able to talk the entire time.

Phase Two					
	Monday	Tuesday	Wednesday	Thursday	Friday
Level 1	Run 3 miles at an easy pace. Be able to talk the entire time.	Run at an easy pace for 3 minutes then run stairs moderately hard for 1 minute.	Run 1.5 miles at an easy pace.	Run at an easy pace for 3 minutes then run stairs moderately hard for 1 minute.	Run 3 miles at an easy pace. Be able to talk the entire time.
Level 2	Run 3 miles at an easy pace. Be able to talk the entire time.	Run at an easy pace for 3 minutes then run stairs moderately hard for 90 seconds.	Run 1.5 miles at an easy pace.	Run at an easy pace for 3 minutes then run stairs moderately hard for 90 seconds.	Run 3 miles at an easy pace. Be able to talk the entire time.
Level 3	Run 3 miles at an easy pace. Be able to talk the entire time.	Run at an easy pace for 3 minutes then run stairs moderately hard for 2 minutes.	Run 1.5 miles at an easy pace.	Run at an easy pace for 3 minutes then run stairs moderately hard for 2 minutes.	Run 3 miles at an easy pace. Be able to talk the entire time.
Level 4	Run 3 miles at an easy pace. Be able to talk the entire time.	Run at an easy pace for 3 minutes then run stairs moderately hard for 2 minutes and 30 seconds.	Run 1.5 miles at an easy pace.	Run at an easy pace for 3 minutes then run stairs moderately hard for 2 minutes and 30 seconds.	Run 3 miles at an easy pace. Be able to talk the entire time.
Level 5	Run 3 miles at an easy pace. Be able to talk the entire time.	Run at an easy pace for 3 minutes then run stairs moderately hard for 3 minutes.	Run 1.5 miles at an easy pace.	Run at an easy pace for 3 minutes then run stairs moderately hard for 3 minutes.	Run 3 miles at an easy pace. Be able to talk the entire time.

### ■ Muscular Strength/Endurance Program

This is a resistance program designed to improve your total body strength and endurance. This is not a bodybuilding or a power-lifting program. It is designed to prepare you specifically for the Candidate Physical Ability Test. If you are not familiar with lifting programs, have any joint pain or feel uncomfortable performing these exercises, you should seek the advice of a professional trainer.

This program is designed to be performed three days a week. This means that you will not be lifting 4 days a week. These rest days are just as important as your workout days. A critical mistake made by some applicants is over training when preparing for the Candidate Physical Ability Test. If you feel you are over training, refer back to the exercise principles, slow down your progression, reduce your overload, and allow for adequate rest between workouts.

This workout should follow the previously mentioned warm-up and stretching program. This program is designed to be a circuit workout. Circuit training has been proven to be a very effective and efficient way to improve muscular strength, muscular endurance and cardiovascular endurance. Once you begin this workout, you will lift at each station for 10 repetitions and then move on to the next exercise. Rest between exercises should not exceed 30 seconds unless you are experiencing some discomfort. For safety purposes, it is recommended that you lift with a partner and spot each other when necessary.

### General Safety Tips While Performing Resistance Training

- Always lift with a partner.
- Ask for help from an expert if you don't know what you are doing.
- Progress slowly to avoid injuries.
- Never show off by attempting to lift more weight than you normally lift.
- Use proper lifting technique when lifting weight plates and dumbbells.
- Never drink alcohol or take medications that may cause drowsiness prior to lifting weights.
- Do not lift too quickly; always control the weights.
- Always use strict form. Proper technique is more important than the amount of weight lifted.
- Keep head in a neutral position, looking straight ahead and not upwards or downwards.

### ■ Progression

Unless you are an experienced weightlifter, it is recommended that you begin by doing one complete cycle through this circuit. After the first week, if you are not still getting muscle soreness 24 to 48 hours after your workouts, you can progress to two cycles through the circuit. After the second week, if you are not still getting muscle soreness 24 to 48 hours after your workouts, you can progress to three cycles through the circuit. Although it is not critical, it is recommended that you follow the exercises in order. If, after progressing to the next level, you feel very sore, you may want to decrease the weights and the number of times you complete the circuit.



## ■ Weight Training Circuit Workout

### ■ 1. Seated Leg

**Press** Quadriceps,  
Hamstrings, Glutes,  
Calves

CPAT Events: Stair Climb,  
Hose Drag, Ladder Raise,  
Forcible Entry, Rescue,  
Ceiling Breach and Pull



Set appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Place feet flat on push platform about shoulder width apart and toes pointed slightly outward.
- Adjust seat so knees are flexed at 90 degrees.
- Push weight up while exhaling.
- Stop just short of locking your knees.
- Keep knees in alignment with feet.
- Keep head in neutral position.

### ■ 2. DB Military Press

Deltoids, Triceps, Trapezius

CPAT Events: Ladder Raise,  
Search, Ceiling Breach and Pull

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Raise two dumbbells to height of shoulders.
- With palms facing forward, alternate pressing each dumbbell upward toward the ceiling, one at a time.
- Exhale while lifting.
- Keep head in neutral position.
- Using slight leg push is acceptable.
- Repeat with other arm.



### ■ 3. Lat Pull Down

Latissimus dorsi,  
Rhomboids, Posterior  
Deltoids, Biceps

CPAT Events: Hose Drag, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Adjust seat and leg hold to allow full range of motion.
- Hold bar in chin up grip with hands close together and palms toward face.
- Pull bar straight down to just below the chin.
- Exhale while pulling weight down.



■ Return to starting position.

#### ■ 4. DB Split-

**Squats** Glutes,  
Quadriceps,  
Hamstrings,  
Calves

CPAT Events: Stair Climb,  
Hose Drag, Ladder Raise,  
Forcible Entry, Search,  
Rescue Ceiling Pull and  
Breach

Pick a light weight (many  
people can start with no  
weights at all). Do not start  
with more than 10 lbs.

- Stand with feet  
together then step  
backward with one  
foot about 26".
- Keep back straight and  
arms down at side  
with head neutral,  
slowly bend both legs.
- Lower yourself slowly  
until your left knee  
barely touches the floor.
- Forward leg should  
remain vertical  
throughout motion with  
knee directly over ankle.  
If knee tends to move  
forward over the toes,  
adjust back foot fur-  
ther backward.
- Return to the starting position.
- Inhale while lowering and exhale while pushing  
back up into upright position.
- Repeat with opposite leg.

#### ■ 5. Bench Press

Pectorals, Deltoids, Triceps

CPAT Events:  
Ladder Raise,  
Forcible Entry,  
Search, Ceiling  
Breach and Pull

Pick appropriate  
weight to overload  
above mus-  
cles but not so heavy as to cause injury or failure.

- Lie on bench, feet flat on floor.
- Hold bar with arms shoulder width apart or  
slightly wider.
- Lower bar to middle of chest.
- Push bar up to starting position.
- Inhale while lowering and exhale while  
pushing back up.



## ■ 6. DB Row

Latisimussdorsi,  
Rhomboids, Posterior  
Deltoids, Trapezius,  
Biceps

CPAT Events: Hose Pull, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Standing to right of bench, place left knee on bench and support upper body with left (nonlifting) arm.
- Keep head in neutral position.
- Pull DB from ground into waist area with right arm.
- Lower DB back to starting position.
- Avoid twisting at waist.
- Inhale while lowering weight and exhale while lifting weight.
- Repeat sequence on opposite side.



## ■ 7. Leg Extension

Quadriceps

CPAT Events: Stair Climb, Hose Pull, Ladder Raise, Forcible Entry, Search, Rescue

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Adjust machine so that backs of knees are against pad and back pad is supporting lower back.
- Extend knees stopping just before the knees lock.
- Slowly lower weight to starting position.
- Exhale while pushing weight and inhale while lowering weight.



**Note: This exercise should not be performed by individuals who have undergone reconstructive knee surgery.**

## ■ 8. Leg Curl

Hamstrings

CPAT Events:  
Stair Climb, Hose  
Pull, Ladder  
Raise, Forcible  
Entry, Rescue



Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Lie flat on machine with top of knees just off the pad and ankle roller situated above the heels.
- Flex the knee until ankle roller reaches the buttocks. Keep hips down and stomach in contact with pad throughout the motion.
- Slowly lower weight to starting position.
- Inhale while pulling weight up and exhale while lowering weight down.

## ■ 9. DB Curl

Biceps, Forearms

CPAT Events: Hose Drag, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Stand up with knees slightly bent.
- Begin with arms down at sides.
- Bend right elbow bringing the dumbbell toward right shoulder.
- Slowly lower dumbbell to starting position.
- Exhale while raising weight and inhale while lowering weight.
- Repeat sequence on opposite side.



## ■ 10. Tricep Extension

Triceps

CPAT Events: Ladder Raise, Forcible Entry, Search, Ceiling Breach and Pull

Pick appropriate weight to overload above muscles but not so heavy as to cause injury or failure.

- Stand up with knees slightly bent.
- Place hands on bar about 6" apart.
- Keeping upper arms at sides, extend the elbows until arms are almost straight and bar is at mid-thigh.
- Slowly return bar to an elbow flexed position at mid-chest level. Upper arms should remain in contact with sides. Do not allow elbows to move forward, away from body.
- Exhale while pushing bar down and inhale while returning bar back up.





## ■ 11. Abdominal Curls

Abdominal Muscles

CPAT Events: All Events



- Sit on ground with knees bent at 90 degrees.
- Keeping feet flat on floor and hands at your side, slowly curl your torso so chin approaches your chest.
- Do not raise torso to more than a 45-degree angle off the floor.
- Slowly return to slightly above your starting position, keeping tension on abdominal muscles at all times.
- Exhale while curling up and inhale while lowering torso back down.

## ■ 12. Swimmers

Erector Spinae (Lower back), Glutes

CPAT Events: All Events



- Lie face down on ground with feet together.
- Place arms straight out in front.
- Move the right arm and left leg up at the same time.
- As you return the right arm and left leg, move the left arm and right leg up at the same time.
- Continue alternating in a moderate cadence.

## ■ 13. Wrist Rollers

Forearm muscles

CPAT Events: Hose Drag, Equipment Carry, Ladder Extension,



Forcible Entry, Rescue, Ceiling Breach and Pull

- Stand erect
- Set machine to “somewhat difficult” resistance
- Grab machine with both palms facing the floor
- Alternately roll each wrist towards the ceiling
- Repeat with palms upward when done

## ■ 14. Hand Grippers

Forearm muscles

CPAT Events: Hose Drag, Equipment Carry, Ladder Extension,



Forcible Entry, Rescue, Ceiling Breach and Pull

- Stand erect
- Set machine to “somewhat difficult” resistance
- Grab machine with both hands
- Alternately close grip to squeeze machine

## ■ Exercises without Weights

Although it is easier to improve muscular strength and endurance with weight equipment, it is also possible to accomplish this with some simple exercises. These exercises require minimum equipment and can be done almost anywhere. Perform these exercises in a circuit. Move from one exercise to the next with minimal rest. Initially, work in the somewhat hard range. This means do not exercise to failure. Start by going through the circuit one time and then gradually progress until you can complete this circuit three times in a row.

### ■ Calisthenics Circuit Workout

#### ■ 1. Chair Squats

Glutes, Quadriceps, Hamstrings

CPAT Events: Stair Climb, Hose Drag, Ladder Raise, Forcible Entry, Search, Rescue Ceiling Pull and Breach



- Stand in front of a sturdy and stable chair with legs shoulder width apart and toes pointing slightly outward.
- Hold arms out straight in front of you.
- Slowly lower your buttocks into the chair.
- As soon as you feel the slightest contact with the chair, slowly stand back up to the starting position.
- Keep your head in a neutral position.
- Inhale while lowering yourself and exhale while standing up.

#### ■ 2. Push Ups

Pectorals, Deltoids, Triceps, Abdominals, Low Back)

CPAT Events: Ladder Raise, Forcible Entry, Search, Ceiling Breach and Pull



- Place hands on ground shoulder width apart or slightly more.
- Keep feet together and back straight throughout the exercise.
- Lower the body until the upper arms are at least parallel to the ground.
- Push yourself up to the initial position by completely straightening arms.
- Inhale while lowering and exhale while pushing.

### ■ 3. Split-Squats

Glutes, Quadriceps, Hamstrings, C

CPAT Events: Stair Climb, Hose Drag, Ladder Raise, Forcible Entry, Search, Rescue, Ceiling Pull and Breach

- Stand with feet together then step backward with foot about 26" behind left foot.
- Keep back straight and arms down at side with head neutral, slowly lower right knee straight down onto the floor.
- Inhale while lowering and exhale while pushing back up into upright position.
- Forward leg should remain vertical throughout motion, with knee directly over ankle. If knee tends to move forward over the toes, adjust back foot further backward.
- Repeat with other leg.



### ■ 4. Chin Ups

Latissimus dorsi, Rhomboids, Posterior Deltoids, Biceps

CPAT Events: Hose Drag, Ladder Extension, Forcible Entry, Rescue, Ceiling Pull and Breach

- Grasp horizontal bar with palms facing you and hands 6" apart.
- Hang from bar with arms fully extended.
- Pull yourself upward until your chin is above the bar.
- Do not kick or swing your legs.
- Return to the starting position.
- Inhale while lowering yourself and exhale while pulling yourself up.
- If unable to complete 3 chin ups, elevate yourself to the bar with a stool or a partner, and slowly lower yourself down in a slow and controlled fashion.



### ■ 5. Bench Steps

Glutes, Quadriceps, Hamstrings, Calves

CPAT Events: Stair Climb, Hose Drag, Ladder Raise, Forcible Entry, Search, Rescue, Ceiling Pull and Breach



This requires good balance, so initially set the step next to a wall or use a partner for safety.

- Use a step or bench 6" to 18" high.
- Place right foot flat on the bench with the left foot flat on the floor.
- Push down with the foot on the bench and step up until both legs are straight.
- Slowly lower yourself back down to the starting position.
- Exhale while pushing up and inhale while lowering down.
- Repeat entire sequence with other leg.
- Start with a smaller step and progressively increase the height. Do not exceed 18" high.

### ■ 6. Dips

Pectorals, Deltoids, Triceps

CPAT Events: Ladder Raise, Forcible Entry, Search, Ceiling Pull and Breach

- Place hands behind you on dip bar or chair with feet straight in front.
- Bend arms and lower body in a controlled manner until the upper arms are parallel with the floor.
- Straighten the arms to return to the starting position.
- Legs can be bent to keep feet from touching the floor.
- If unable to perform 3 dips, use a stool or a partner to help you up and then lower yourself down slowly.
- Inhale while lowering yourself and exhale while pushing up.



### ■ 7. Squat Thrusts

Pectorals, Deltoids, Triceps, Abdominals, Glutes, Quadriceps

CPAT Events: Stair Climb, Hose Pull, Ladder Raise, Forcible Entry, Search

- Stand erect with feet together.
- Quickly bend knees until palms touch the floor just slightly in front of you.
- Supporting weight with arms, tighten your abdominal muscles, and throw your feet backwards until you are in the push up starting position.
- Reverse sequence until you are back at the starting position. This is one repetition.
- Inhale and exhale evenly throughout the exercise



## ■ 8. Abdominal Curls

Abdominal Muscles

CPAT Events: All Events



- Sit on ground with knees bent at 90 degrees.
- Keeping feet flat on floor and hands at side, slowly curl torso so chin approaches your chest. Do not raise torso to more than a 45-degree angle off the floor.
- Slowly return to slightly above your starting position, keeping tension on abdominal muscles at all times.
- Exhale while curling up and inhale while lowering torso back down.

## ■ 9. Swimmers

Erector Spinae (Lower back), Glutes

CPAT Events:  
All Events



- Lie face down on ground with feet together.
- Place arms straight out in front of you.
- Move the right arm and left leg up at the same time.
- As you return the right arm and left leg, move the left arm and right leg up at the same time.
- Continue alternating in a moderate cadence.

## ■ 10. Hand Grippers

Forearm muscles

CPAT Events: Hose Drag, Equipment Carry, Ladder Extension, Forcible Entry, Rescue, Ceiling Breach and Pull



- Stand erect
- Place tennis ball in palm of hand
- Slowly squeeze hand compressing tennis ball
- Repeat with other hand

## Supplemental Task-Specific Exercise Training

### INTRODUCTION

The supplementary exercise program presented in the following sections not only makes use of the overload principal of training but also applies the all-important principal of training specificity. Exercise training specificity means that performance improvements occur most readily when training closely resembles the specific physical activity for which improved performance is desired. When training for specific activities requiring high levels of muscular strength and muscular power (e.g. hose drag and pull from kneeling position, ladder raise and extension, sledge hammer swing, dummy drag, and ceiling breach and pull) task-specific muscular overload should

accompany a general strength training program. Practice and training in the specific activity becomes crucial because much of the improvement in muscular strength/power performance depends upon skill learning and new muscular adaptations (i.e., coordination of specific muscle actions) required for the physical task. In most instances, training in the actual task proves most effective.

The following program provides examples for applying your general training program to actually performing CPAT tasks. As with your other preparation training, you must progressively upgrade the duration, frequency, and intensity of exercise to continually improve your performance. This will maximize your improvement in performing the CPAT.

In the beginning phase of this training, progress slowly so that you can safely learn the skill and coordination required for the movements. As you become confident in your ability to successfully complete a specific exercise task with relative ease, redirect your training energies to those activities that pose the greatest difficulty. For many people, the stair climb with full weights, forcible entry, and rescue prove the most difficult.

### ■ Stair Climb

#### Exercise

You can readily modify aerobic training to more closely resemble the 3-minute stair climb in the CPAT by performing actual stair-stepping exercise on any conveniently located first step of a staircase, preferably at least 8 inches in height. Step at a rate that permits completion of 24 complete stepping cycles within a one-minute period. A stepping cycle consists of stepping up with one foot, then the other and down with one foot, then the other in a rhythm “up-up, down-down.” Strive to complete two stepping cycles within a 5-second period.

#### Progression

Begin training by stepping continuously (unweighted) for 5 minutes. As your fitness improves, complete a second and then third 5 minute exercise bout interspersed with several minutes of recovery. Once you can complete three intervals of 5-minutes of stepping, add weight to your torso in the form of a knapsack to which weights, sand, dirt or rocks have been added. Continue to perform three 5-minute in-

tervals of stepping; progressively add weight to the knapsack as your fitness improves so that you can step with 50 pounds of additional weight. (This 50-pound knapsack and work gloves should be worn in training for all subsequent events of the CPAT.) In addition, carry 10-15 pounds (dumbbell, sand filled plastic container) in each hand while stepping. The total weight carried (knapsack plus hand-held weights) should equal approximately 75 pounds. At this stage, reduce the duration of the exercise interval to 3 minutes. This task-specific training not only improves aerobic fitness for continuous stepping but it also improves your leg power for stepping in the weighted condition, which represents a unique component of this CPAT item.



## ■ Hose Drag

### Exercise

Attach 50 feet of rope to a duffel bag to which weight has been added. Tires or cement blocks can also be used for resistance. Choose an initial resistance that enables you to perform 8 to 10 repetitions (2-minute recovery between repetitions) of the exercise sequence. This generally represents an effort that you would rate as feeling “somewhat hard.”

### Progression

Progressively increase the resistance to 60 to 80 pounds as fitness improves. Place the rope over your shoulder and drag the resistance a distance of 75 feet. (You should run during this phase of the event.) Immediately drop to one knee and steadily and briskly pull the rope hand-over-hand to bring the resistance into your body. A parking lot, school yard, driveway, or sidewalk can be used for training on this event.

## ■ Equipment Carry

### Exercise

Use two dumbbells or plastic containers filled with sand so that each weighs approximately 30 pounds. Place the weights on a shelf four feet above ground level. Remove the weights, one at a time, and place them on the ground. Then pick up the weights and carry them a distance of 40 feet out and 40 feet back and replace them on the shelf.

### Progression

If the initial weight feels too heavy, choose a lighter weight for your initial practice. Continue to practice this test item until it can be performed with 30 pounds with relative ease.

## ■ Ladder Rise and Extension

### Exercise

Ladder Raise. The ideal training for this task requires an actual 12-foot aluminum extension ladder. If this size ladder is unavailable, you can use a single ladder or smaller extension ladder to practice the skill required raising the ladder. Practice of the ladder raise sequence requires the assistance of two adults to “foot” the ladder at its base to prevent it from sliding forward and/or falling during the raise. In practicing this component (as described in the test directions) it is important to initially move slowly so as to develop the skill and confidence to safely complete the required movements. Be sure to use each rung when raising the ladder to develop the coordination and timing necessary on the CPAT.

### Exercise

Ladder Extension. Task-specific training of the muscles required in the ladder extension can be provided by attaching a rope to a weighted duffel bag or knapsack. Place the rope over a tree branch (or horizontal bar support above a row of playground swings) eight to ten feet above the ground. With hand-over-hand movements steadily raise

the bag to the top of the branch or bar and then slowly lower it to the ground.

### Progression

Start with a weight that you would rate as feeling “somewhat hard,” and perform eight to ten repetitions of the movement. Rest two minutes and repeat the exercise-rest sequence two more times. As your strength improves progressively add more resistance until you can exercise with 40 to 50 pounds of weight.

## ■ Forcible Entry

### Exercise

Borrow or purchase a ten-pound sledgehammer. Wrap padding around a large tree or vertical pole at a level of 39 inches above the ground with a circular target in the center. Stand sideways and swing the sledgehammer in a level manner so the head strikes the center of the target area. Focus on using your legs and hips to initiate the swinging motion.

### Progression

The initial phase of this task-specific training should focus on learning the coordinated movement of your arms and legs to accurately hit the target. Repeat the swing 15 times and rest for two minutes. Repeat this exercise-rest sequence twice again. Strive to increase the velocity (power) of each swing without sacrificing accuracy as your comfort level and skill on this test item improve.

## ■ Search

### Exercise

Practice crawling on hands and knees (wearing sweat pants and/or kneepads) at least 70 feet while making several right angle turns during the crawl. For the major portion of the crawl keep low enough so as not to contact an object three feet above the ground. Periodically, drop your stomach and crawl ten feet along the ground.

### Progression

Once you are comfortable crawling as above repeat the sequence with a knapsack on. Gradually increase the weight within the knapsack until it equals 50 pounds.

## ■ Rescue

### Exercise

Attach a short handle to a duffel bag to which rocks, sand, or other appropriate weight can be progressively added. Start with a weight that feels “somewhat heavy.” You can grasp the handle with (a) one hand and drag the “victim” in a cross-over, side-stepping manner, or (b) two hands while facing the “victim” and moving directly backwards while taking short, rapid stagger steps. Drag the weight 35 to 50 feet in one direction turn around and drag it back to the starting point. Complete eight to ten repetitions of this task with a two-minute rest interval between each trial.

## Progression

Gradually increase the resistance until you can successfully complete 4 repetitions (with rest interval) with 165 pounds.

## ■ Ceiling Breach and Pull

### Exercise

**Ceiling Breach.** Tie a rope to a dumbbell or weighted knapsack placed between your legs, shoulder width apart. Grasp the rope, arms slightly away from the body with one hand at upper-thigh level and the other hand at chest level. Lift upwards and out from the body in an action that simulates thrusting a pole through an overhead ceiling. Use a resistance that feels “somewhat hard,” yet enables you to complete three sets of eight repetitions with two minutes of rest between sets.

### Progression

Continually add weight as strength improves. Practice coordinating upward arm movements with an upward extension of the legs to provide a more powerful thrusting action.

### Exercise

**Ceiling Pull.** The training set-up for this simulation is the same as that used in training for the ladder extension. However, unlike the hand-over-hand movement that is required for the ladder extension the ceiling pull requires exerting power in single, repeated downward thrusts. Grasp the rope attached to the weighted knapsack or duffel bag with hands spaced about one-foot apart and the bottom hand at chin level. In a powerful movement simultaneously pull arms down and lower your body to raise weight several feet above the ground. Repeat eight to ten consecutive repetitions of the movement with a resistance that feels “somewhat hard.” Complete three sets with a two-minute recovery interval interspersed.

### Progression

Progressively add resistance as fitness improves.

As your fitness improves you should begin to link the various test components. For example, immediately upon finishing the stair climb move directly to the hose drag and then to the equipment carry. Eventually you will be able to simulate all of the task components in the CPAT in a continuous exercise sequence. ■