

(MPAT)

Montana Physical Abilities Test Summary



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The Montana Physical Abilities Test (MPAT) is a hybrid physical ability/job sample physical abilities assessment process designed to evaluate Law Enforcement officer candidates on the essential physical capacities required to satisfactorily perform their job duties. MPAT was originally based on data taken from the Canadian RCMP PARE (Physical Abilities Requirement Evaluation) research and tests as well as multiple Job Task Analysis (JTAs) for Oregon Law Enforcement, corrections and probation and parole officers.

The Canadian PARE program, which serves as the constructional and theoretical underpinnings of MPAT is research-based, having been derived from the work of Mr. Doug Farenholtz of the British Columbia Justice Institute. Mr. Farenholtz, through a scientifically accepted method of task analysis, identified nine baseline physical activities required by public safety officers in the pursuit of their duties.

These were:

Walking	Running	Jumping
Climbing	Vaulting	Lifting
Carrying	Pulling	Pushing

It was identified that Law Enforcement officers, from time-to-time, had to have the physical ability to gain and maintain physical control over suspects.

Law Enforcement officers must also intervene in disputes where they have to control aggressive and/or violent behavior (pushing, pulling). They are also involved in search and rescue operations (climbing, vaulting, crawling, carrying), particularly involving motor vehicle accidents (pushing, pulling, crawling, carrying). Although not commonplace, these activities are essential and critical tasks for Law Enforcement.

MPAT was designed to replicate critical and essential physical tasks and demands faced by Law Enforcement officers in the normal performance of their duties. Both specific tasks and overall physical demands are replicated in the MPAT through the use of a carefully designed and validated, timed "obstacle course".

PART ONE

Obstacle Course - Mobility Run

Section one of MPAT consists of a 1235-foot obstacle run where the officer must demonstrate essential, job-related physical abilities such as mobility, agility, flexibility, power and general physical endurance.

From the course start marker the officer runs to the outside of the marked course towards the first marker placed 20 feet out, and 10 feet from the course centerline. Before reaching the first marker the officer must cross the balance beam (centered between the start marker and first marker).

From this marker the officer runs diagonally towards the second marker. This marker is placed 40 feet out from the start position and 10 feet to the right of the centerline. Before reaching the second marker, the officer must jump over a five-foot obstacle (mat). On landing, the officer must turn left and proceed towards the stair-simulator.

The stair-simulator is placed in the center of the course in such a manner that the center of the top platform is exactly sixty (60) feet from the start marker. The officer must run up and down the stairs hitting at least one step on the way up, the top platform, and one step on the way down.

The third marker is set in the center of the course exactly eighty (80) feet from the start marker. The officer runs outside this marker, turns sharply right or left and runs back towards the stairs going up and down again. He/she then proceeds towards the fourth marker. The fourth marker is placed exactly opposite to marker number two and is in line with marker number one. Before reaching marker four, the officer must crawl under the crawl obstacle, which is centered between the stairs and marker four. It is 23 inches high.

The officer runs around marker four, turns left diagonally heading toward marker five. Before reaching this marker, the officer must jump over two identical obstacles (18 inches high and 10 feet apart).

Upon reaching the fifth marker the officer runs to the right, towards the original start marker. Before reaching this marker the officer will vault a 3-foot high railing. Officers will land in control on the opposite side of the vault obstacle, fall to their back or stomach (alternating on each lap) recover to their feet without mechanical assistance and proceed around the start marker before beginning the second lap. Six laps are completed in this manner.

Getting up without mechanical assistance means:

After a stomach fall the officers push up from the floor mat with their arms in a "push-up" type manner (but more akin to actual work tasks). Their form is not a significant issue. However, the officer is not allowed to roll over or use the railing for support.

After the back fall the officer will stand up, using a sit-up/curl-up procedure. Again, form is unimportant. Officers can roll on their back and use the roll to gain momentum to stand-up. The

officer cannot use the railing for assistance. Six laps must be completed before starting Part 2 (fight portion) of the test. The six repetitions are de-signed to put the officer in an anaerobic condition before the fight portion of the test (to simulate the typical pursuit and struggle to apprehend work scenarios). Once the sixth lap of the obstacle course is completed the officer proceeds towards the push-pull machine, which is part two of the testing process.

PART TWO

Push Pull Machine

One of the more difficult aspects of standardizing physical tests involves presenting essentially identical tasks to each participant. This is one of the reasons why testing outdoors is not advisable. Weather and surface conditions are unpredictable and uncontrollable. Using a machine to simulate struggling with a person allows for absolute uniformity in testing. The push-pull machine also has the advantage of offering a more balanced exertion profile than other methods that might inadvertently emphasize upper body strength.

After completing the obstacle run the officer moves to the mechanical push/pull station, consisting of a push-pull unit and a line on the wall 39 inches from the floor. Reaching the push-pull unit after completing the sixth lap of the obstacle course should take no more than five seconds. Maximum allowed distance between the course terminus and the push-pull machine is 20 feet. Where it is physically impossible to locate the station within 20 feet of the end of the run, the amount of time equivalent to the period taken to reach the push/pull must be deducted from the officer's total time to maintain standardization. The officer may perform the push-pull activity in the order he/she chooses. Since the "push" is more difficult to perform it is generally recommended to do this activity first.

Push Activity

Upon reaching the push-pull unit the officer grasps the machine handles and pushes the 80lbs off the floor, then moves right to left completing a 180-degree arc. Six complete arcs must be executed by bringing the bar parallel with the base of the machine. The officer must remain in control of the machine throughout the activity. Shoulder girdle strength and endurance are required to push the weight and maintain control.

The officer's chest may not touch the lever arm. Arms must remain bent at the elbow throughout the performance of the activity. The degree of the bend can vary from 60 to 135 degrees. The elbows or hands must not be touching the chest or shoulders since this indicates a lack of muscular control. The officer's back must be straight and the contraction of the abdominal muscles to maintain pelvic tilt is essential. This part of the test lasts approximately 25 seconds.

It is important that the officer's elbows remain bent throughout the test and the arms or hands must not touch the chest or shoulders. Officers must be reminded of this throughout the performance of this push activity. If, after a reminder the officer fails to correct their technique, the specific arc should be repeated and the correct form used.

Controlled Falls

Once the push activity is completed the weight is released, again while maintaining control at all times. The officer moves away from the unit, falls to his/her stomach (executing a push-up type movement) and stands up, touching the marked line on the wall 39 inches from the floor. The officer then executes a second fall; this time on their back. Once again, the officer executes a sit-up type maneuver, rising to a standing position touching the wall once again. This sequence is repeated twice (4 falls, 2 front, 2 back). The activity typically lasts 20 seconds. Specific form is not important. However, the officer must maintain control and come back to the ready position after each repetition.

Note: Precautions must be taken in both the front and back falls. The officer should be advised to avoid a full squat position. The safe fall and stand-up procedures should be demonstrated by the test administrator and practiced by the officers before the test is initiated.

Pull Activity

When the fourth fall is completed the officer grasps the rope and pulls the weight off the floor. Maintaining the weight in this position, he/she moves through 180 degrees an arc by bringing the bar parallel to the base of the machine. This action is repeated six times, with the officer touching the marked line three times on each side.

This portion of the test lasts approximately 20 seconds. The officer must remain in control at all times and their elbows must remain flexed.

In order to maintain proper balance a shuffle movement of the feet is suggested. Crossing the feet over weakens this position and, for less fit individuals, may cause them to drop the weight or lose their balance.

The officer's back must be kept straight throughout the movement as well as contracting the abdominal muscles, thus stabilizing the pelvis.

PART THREE

Dummy Drag Section

After a rest period of up to 60 seconds, the officer must drag a 165 pound dummy a distance of 25 feet. Officers must use the under the arm technique to accomplish this. This is done by reaching under the dummy's arms and grasping the forearm section. The officer then drags the dummy for 25 feet. Officers must perform this task in a controlled and continuous manner.

Once motion is started the officer cannot stop if they are to pass this section of the test. Officers will have three attempts to complete task. Three unsuccessful trials will constitute a failure. Officers failing the dummy drag section fail the MPAT examination.

SECTION ONE Station - Balance Beam

From a standing start, the officer runs around a cone and jumps up on the fifteen-foot balance beam, running the entire length. If he/she falls off the beam the officer must return to the course start-point and repeat the obstacle.

Assessment Elements

Job Tasks

- Pursuing a person on foot over uneven terrain
- Walking-Running while balancing on narrow elevated surfaces

Physical Abilities

- Balance
- Depth perception
- Agility
- Lower body strength



Station - Five-foot Jump Obstacle

After completing the balance beam obstacle the officer rounds another cone and jumps the five foot obstacle (designed to simulate a ditch or other opening-type obstacle). The officer's feet (foot) cannot land within the marked obstacle perimeter.

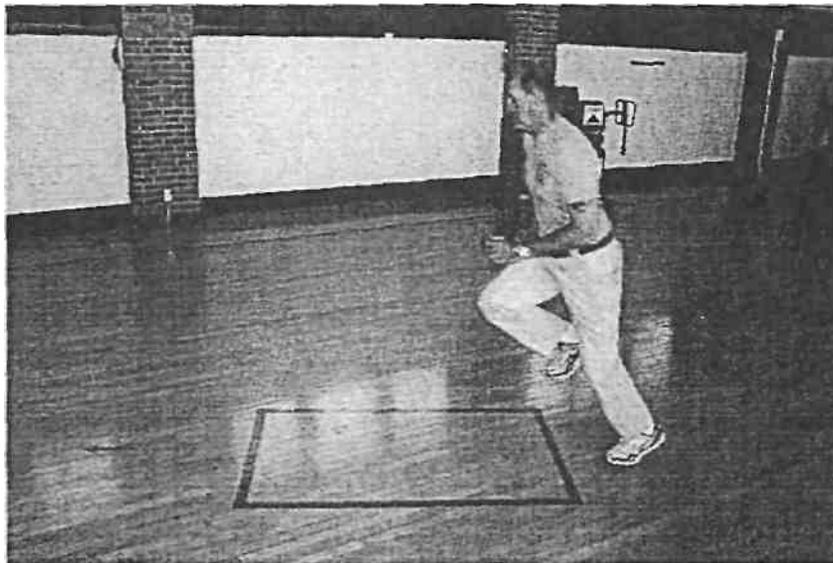
Assessment Elements

Job Tasks

- Pursuing someone on foot
- Jumping across obstacles

Physical Abilities

- Depth perception
- Running speed
- Agility
- Lower body strength
- Core strength
- Ability to jump



Station - Stair Climb Simulator

After completing the jump obstacle the officer rounds another cone and runs 60 feet of the course to the stair simulator. Comprised of five steps on either side, the officer runs up one side, down the other, rounds a cone and repeats the stair obstacle. The officer must hit at least one step and the top platform, going up and down.

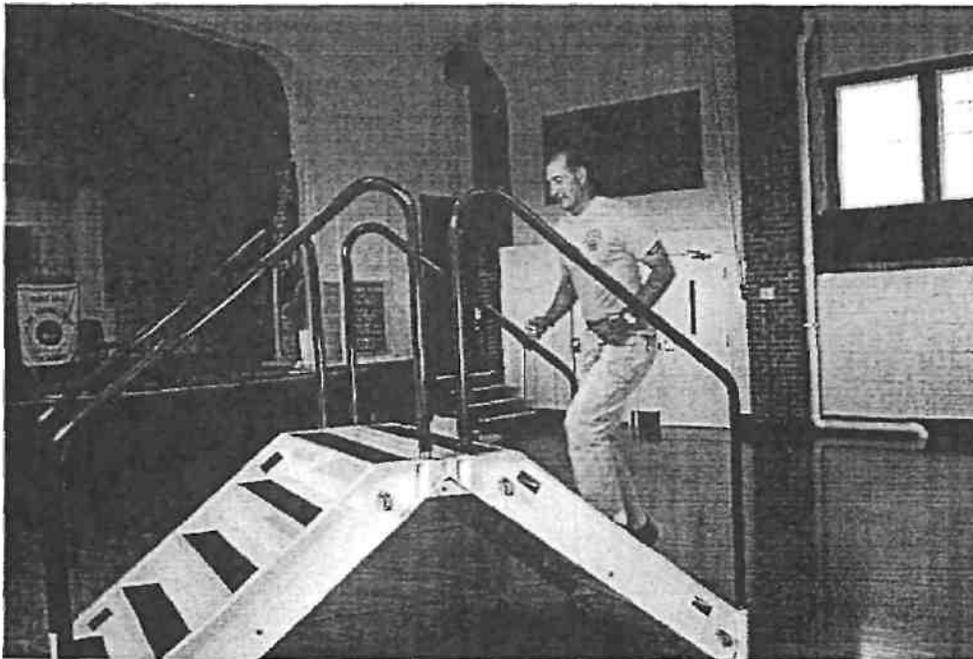
Assessment Elements

Job Tasks

- Pursuing someone on foot
- Walking/Running Up/Down Stairs

Physical Abilities

- Depth perception
- Visual acuity
- Agility
- Coordination
- Lower body strength
- Core strength



Station - Crawl Obstacle

After completing the stair simulator obstacle, the officer runs to the crawl obstacle, drops down and goes under the 23" high bar.

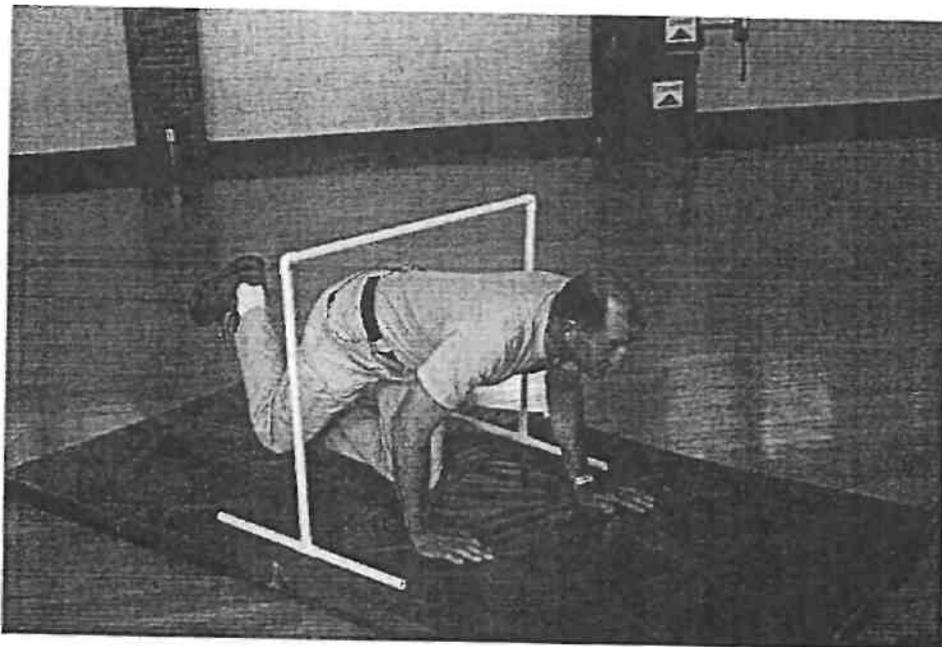
Assessment Elements

Job Tasks

- Pursuing someone on foot
- Crawling through small opening

Physical Abilities

- Agility
- Flexibility
- Coordination
- Core body strength
- Core power
- Lower body strength



Station- 18-inch Barrier Jump (x2)

After completing the crawl obstacle the officer traverses the center section of the course, which contains two eighteen-inch jump barriers. These barriers are intended to represent small obstructions, such as curbs, landscape features, etc.

Assessment Elements

Job Tasks

- Pursuing someone on foot
- Jumping over common obstacles

Physical Abilities

- Depth perception
- Coordination
- Balance
- Lower body strength
- Core strength
- Ability to jump



Station - Three-foot Vault

After completing the two 18 -inch jump barriers the officer does a controlled vault of three feet, makes a two-footed landing, then drops to a prone position, rises without assistance and begins the obstacle course again.

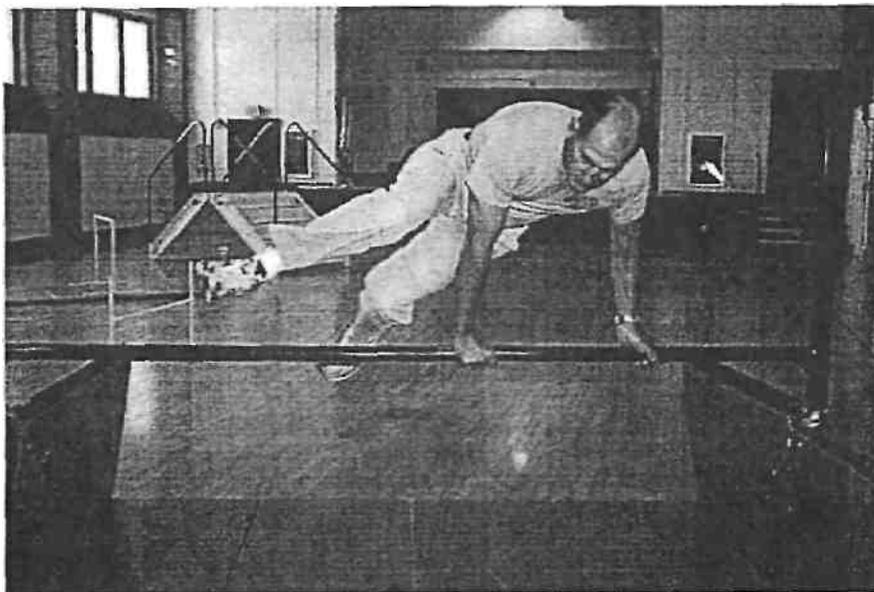
Assessment Elements

Job Tasks

- Pursuing someone on foot
- Jump/Climb over obstacles
- Regain feet after falling/being knocked down
- Jump down from elevated surface

Physical Abilities

- Depth perception
- Agility
- Coordination
- Balance
- Core Power
- Upper/Lower body strength



Station - Fall to Back/Front

After completing the vault obstacle and returning to their feet the officer falls to stomach and then to back, recovering to their feet each time without using any assistance.

The purpose of this is to simulate recovery from falling/being knocked down, after clearing an obstacle.

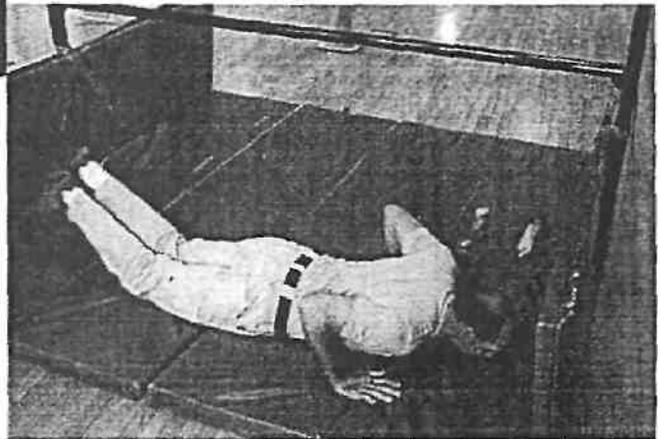
Assessment Elements

Job Tasks

- Physically control a person
- Pursue/Struggle with suspect
- Regain feet after falling/being knocked down

Physical Abilities

- Balance
- Core strength
- Upper/Lower body strength



SECTION TWO

Station - Push Pull Machine

After completing six laps of the obstacle course the officer moves to the push-pull machine. This machine simulates struggling with, and controlling a subject, and extracting subject from a car or room. It presents a standardized "fight" obstacle to each participant.

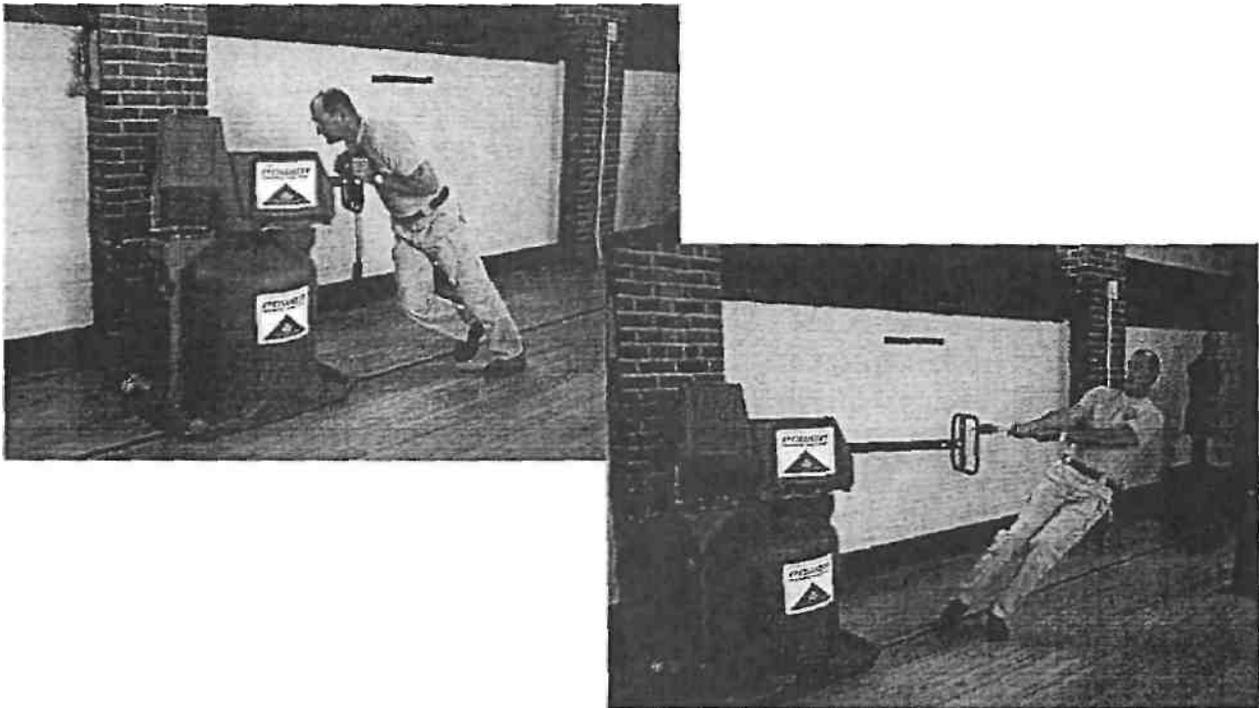
Assessment Elements

Job Tasks

- Physically control a person
- Pull-Drag a person
- Struggle/Fight with a person

Physical Abilities

- Balance
- Agility
- Core strength
- Upper/Lower body strength



Station - Fall to Back/Front

After completing the push portion machine the officer moves to a wall and executes front and back falls to the floor, simulating being knocked down or falling to the ground in a fight scenario, and recovering to feet.

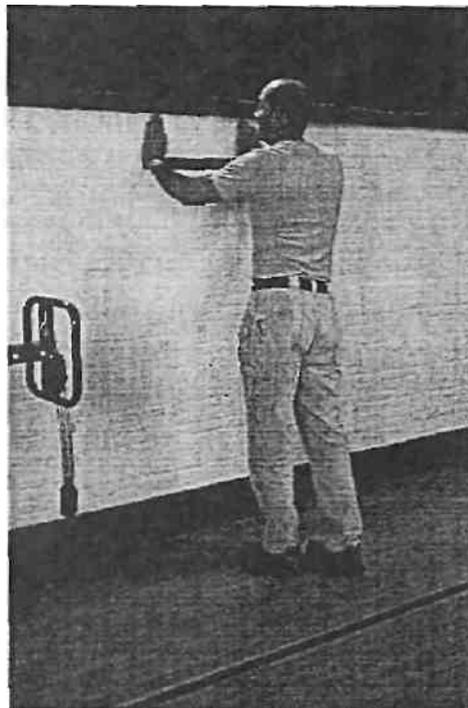
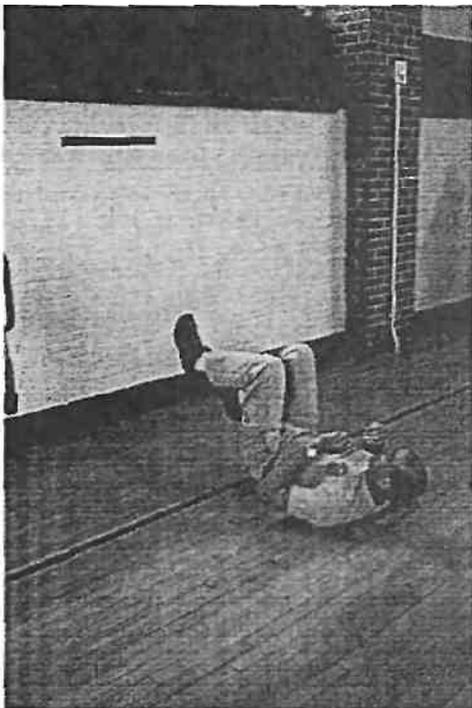
Assessment Elements

Job Tasks

- Physically control a person
- Get to feet after falling/being knocked down

Physical Abilities

- Balance
- Core strength
- Upper/Lower body strength



SECTION THREE

Station - Dummy Drag

After completing the fight portion of the test, the officer is given a sixty (60) second recovery time, and then moves to a 165-pound dummy. The dummy must be moved in a controlled manner for 25 feet.

Assessment Elements

Job Tasks

- Physically control a person
- Pull/Drag a person
- Lift/Carry a person

Physical Abilities

- Balance
- Core strength
- Lower/Upper body strength
- Ability to recover (the drag takes place after running the obstacle course, participants are usually quite fatigued at this point)



General Exertion Elements

- Cardio-vascular endurance
- Muscular endurance
- Core body strength
- Explosive power
- Balance
- Agility
- Flexibility
- Coordination
- Speed
- Depth perception