# White Mountain Apache



**Fire & Rescue Department**

**Adopted 11/4/2013**

**Occupational Safety and Health**

**SOP 405.01 Physical Fitness (Fit for Duty) - Firefighters**

1. **Purpose**
   1. The purpose of this policy is to ensure that firefighters are physically fit and remain physically fit for firefighting activity.
2. **Scope**
   1. **This policy applies to all operational line members (trainee, recruits, part-time and full-time firefighters, emergency medical technicians and fire officers), engaged in providing direct emergency service delivery.**
3. **Definitions**
   1. Interagency Incident Qualification Card – aka Red Card. An accepted interagency wildland certification card.
   2. Fit for Duty – means physically able to perform the duties of the job in a safe, secure, productive, and effective manner without the need for reasonable accommodations.
   3. Return to Work – medical clearance from a physician affirming that the member is cleared to return back to work. Also referred to as “Medical Clearance”.
   4. Fitness Assessment – physical assessments made to determine Fit for Duty status, such as the Initial Physical Ability Test (IPAT), Modified Physical Ability Test (MPAT), Work Capacity “Pack Test and/or 3 Mile Run/Jog.
   5. Quarterly Physical Ability Assessment – fitness assessment done by the organization for active Fit for Duty personnel to ensure firefighters remain fit for duty. These assessments are conducted every three (3) months.
   6. Initial Physical Ability Test (IPAT) – entrance firefighter physical ability assessment designed to determine if applicants are capable to perform the task of a firefighter. It is similar to the Combat Challenge or CPAT exam with a <10 minute time pass/fail criteria for both sexes.
   7. Modified Physical Ability Test (MPAT) – this is the IPAT with a reduced time elements for women and men to serve as an alternative to the department’s Quarterly Physical Ability Assessments.
4. **Reference**
   1. NFPA 1583 *Standard on Health-Related Fitness Programs for Fire Department Members*, 2008 Edition.
   2. NWCG PMS304-2/NFES1596 *Fitness and Work Capacity, 2009 Edition.*
5. **Policy**
   1. All line staff members, which includes; the permanent, occasional, seasonal, and the temporary employee as defined in the scope, shall participate in a periodic fitness assessment as recommended by NFPA 1583 *Standard on Health-Related Fitness Programs for Fire Department Members*, 2008 Edition.
   2. Full-time firefighters shall actively participate in the department's mandatory physical training sessions each shift they work.
   3. The department’s mandatory physical training shall consist of calisthenics as listed in this policy and other physical activities that will contribute to the passing of the Quarterly Physical Ability Assessments.
   4. Part-time firefighters are encouraged to participate in the department's mandatory physical training sessions whenever possible and/or to work out on their own in order to remain physically fit.
   5. When appropriate, members are encouraged to take advantage of the services provided by the department and Tribe that have been established to physical fitness.
   6. All members must be cleared for participation in the fitness assessment through yearly physicals, post-injury/illness physician clearance (i.e. Return to Work clearance), as well as following those guidelines with pre-vitals taken from Fire Department staff.
   7. Any individual observed to be physically impaired and/or who may be unable to effectively and safely perform one or more essential function(s) of their job may be subject to a fitness assessment; such as the initial physical ability test (IPAT) or any of the Quarterly Physical Ability Assessments performed by the organization.
   8. NFPA 1583 recommends the following components be implemented within the department’s physical fitness program and periodic fitness assessments.
      1. Aerobic capacity – met with the annual pack test and 3 Mile Run/Jog.
      2. Muscular strength – met with the annual pack test and calisthenics.
      3. Muscular endurance – met with the annual pack test.
      4. Flexibility – met with the biannual flexibility self assessment.
   9. Quarterly Physical Ability Assessments
      1. The Quarterly Physical Ability Assessment conducted by the department as a condition of employment to determine continued Fit for Duty status shall be comprised of three (3) assessments that are performed every three (3) months or quarters throughout the year. Those tests are:
         1. Annual Work Capacity “Pack Test” with calisthenics.
         2. 3 Mile run/jog Assessment with calisthenics.
         3. Modified Physical Ability Test (MPAT) with calisthenics.
      2. Annual Work Capacity “Pack Test” is a [U.S. Forest Service](http://en.wikipedia.org/wiki/U.S._Forest_Service) physical test for [wildland firefighters](http://en.wikipedia.org/wiki/Wildland_firefighter). The “Pack Test” tests the capacity of [muscular](http://en.wikipedia.org/wiki/Muscular) and [aerobic](http://en.wikipedia.org/wiki/Aerobic_exercise) endurance of the firefighter. There are three tests known as arduous, moderate, and light. All members, as defined in the scope and unless otherwise identified in this policy, are required to perform and pass the arduous duty “Pack Test”.
         1. The arduous duty “Pack Test” is administered annually by the BIA Forestry and/or Fire Department and is comprised of a 3-mile hike (no jogging or running) while carrying a 45-lb. pack. This task must be completed within the altitude correction time requirements as found in the NWCG Work Capacity Test Administrator’s Guide.
         2. Passing of the “Pack Test” is a requirement to become “Red Carded”, which is a condition of employment and no reasonable accommodations will be provided.
      3. 3 Mile Run/Jog is an aerobic capacity test. Aerobic capacity is perhaps the most important area of any fitness program. Research clearly indicates that acceptable levels of aerobic capacity are associated with a reduced risk of high blood pressure, coronary heart disease, obesity, diabetes, some forms of cancer, and other health problems in adults.
         1. The aerobic capacity assessment is comprised of a 3 mile jog.
         2. Time variances for each age bracket for the 3 mile run is as follows:
            1. 44 and Under – 35 minutes
            2. 45 and over – 38 minutes
         3. The 3 mile jog shall be used at least twice annually.
         4. In lieu of the run for those suffering medical aliments, an alternative aerobic capacity assessment may be allowed. Each request made shall be taken on a case by case basis.
      4. Modified Physical Ability Test
         1. The MPAT is the IPAT with a reduced time element for women and men. It is offered to reduce stress on the body during running activities and to provide a physical ability assessment during times of cold weather or snow fall.
         2. Time variances for gender differences for the MPAT are as follows:
            1. Men: 5 minutes.
            2. Women: 6 minutes, 30 seconds.
         3. The MPAT shall be performed in accordance with SOP 405.04 *Initial Physical Ability Assessment*.
         4. Given that the MPAT/IPAT provides realistic fire ground and rescue activities, reasonable accommodations will NOT BE provided for members who cannot perform any portion of this assessment.
      5. Calisthenics
         1. The calisthenics assessment is comprised of a number of activities intended to increase body strength and flexibility with movements such as bending, jumping, swinging, twisting or kicking, using only one's body weight for resistance.
         2. Calisthenics shall be completed with each Quarterly Physical Ability Assessment (Pack Test, 3 Mile Run/Jog or MPAT).
         3. Calisthenics activities are as follows and shall be done in accordance with Appendix A of this policy:
            1. Push-ups – 25 in 60 seconds
            2. Bicycle Crunches – 60 in 120 seconds (30 each side)
            3. Squat Thrust (Up Downs) – 30 in 120 seconds
            4. Walking Lunges – 60 continuous reps (30 each leg).
         4. Crews may exceed the basic requirements by performing additional calisthenics, such as jump rope or jumping jacks.
      6. Flexibility
         1. Flexibility provides a wider range of motion, resulting in a more symmetrical body, better posture, improved balance, relief of muscular cramps, alleviation of lower back pain, and reduction of injuries.
            1. Flexibility assessment is comprised of the following and shall be done in accordance with Appendix B of this policy:

Box Reach or V Sit reach

Wall Reach (Trunk Rotation)

Groin Flexibility

* + - * 1. Baseline flexibility results should be gathered and measured at least twice a year to gauge improvements in flexibility. This is not a pass/fail assessment and can be performed on an individual basis.
        2. Crews may exceed the basic requirements by performing other flexibility test.
  1. Any medical condition or disease process that can limit a member’s ability to safely participate in the Quarterly Physical Ability Assessment should be addressed to the member’s treating physician before participating in the assessments. Refer to SOP 405.00 *Medical Clearance*.
  2. For those who do not pass their Quarterly Physical Ability Assessment (Pack Test, 3 Mile Run/Jog or MPAT), including the calisthenics, will:
     1. be placed on automatic fitness probation, and
     2. be provided two (2) additional attempts to pass their Quarterly Physical Ability Assessment.
  3. Employees who are retaking any portion of their Quarterly Physical Ability Assessment will:
     1. have to wait **at least** 48 hours before retaking the assessment and must retake their assessment within 14 calendar days.
     2. have to perform all calisthenics as required by the organization if one event was failed. For example: If a member fails the push-up station and passes the others, that member will still have to perform and pass all of the required calisthenics again. The calisthenics are one event, much like the 3 Mile Run, MPAT and/or Pack Test.
     3. need to make arrangements with the administrator of the test to schedule a date and time for the retake.
  4. For those who do not pass their second attempt will be placed on suspension without pay, not to exceed 30 calendar days. These individuals are determined to be unfit for duty given the physical demands of the job. That member will then be provided with one additional opportunity (third attempt) to pass their Quarterly Physical Ability Assessment.
  5. In the event the member fails their third attempt or fails to test, that member will be terminated from employment as this individual was determined to be unfit for duty given the physical demands of the job.

1. Supervisors shall not administer a Quarterly Physical Ability Assessment in unusually high temperatures or humidity, when the wind is strong, or on a day when air quality warnings have been issued.
2. Completion of the Quarterly Physical Ability Assessment shall be documented on the Physical Ability Test form prescribed by the organization.
3. Fire Officers (Captains and Lieutenants) are required to carry out this policy to ensure their crew members remain physically fit for duty and can successfully and safely pass the department’s Quarterly Physical Ability Assessment.
4. The Deputy Fire Chief is required to carry out the provisions of this policy and record the results for placement in the member’s personal file.
5. **Baseline Vitals**
   1. Prior to conducting any fitness assessment and warm up activities, members shall record their resting vital signs.
   2. Members shall not be allowed to participate in the fitness assessment with a:
      1. Blood pressure greater than 140/90, unless within normal range for the individual (e.g. hypertension history),
      2. Heart rate greater than 100, and
      3. Fever, or other illness/injury that may result injury or further re-injury.
   3. Vital signs shall be taken again 10-20 minutes after completion of the fitness assessment.
   4. If vitals have not gone back down within the baseline ranges, continue to evaluate the member. Replenish fluids lost, allowing for rest, and consider EMS evaluation.
   5. Members shall not be released from the assessment until vitals have gone back down to within baseline ranges.
   6. If a member refuses to perform any portion of their Quarterly Physical Ability Assessment due to an illness or injury, that member shall be sent home. It is the belief that if the member is ill or injured in any manner that prohibits him/her from performing the Quarterly Physical Ability Assessment, then that member is currently unfit for duty for the day and cannot perform essential job functions and/or may be a hazard to others or themselves. In addition, an activity may exacerbate a condition resulting in an unnecessary workman’s compensation claim.
6. **Return to Work Physical Ability Assessment** 
   1. For those who are cleared to Return to Work by the physician for full duty **without restrictions** following a pregnancy, an extended personal illness/condition, significant surgery and/or debilitating injury shall be subject to the IPAT once they have been medically cleared to return to full duty, but prior to assignment to active duty. Other illnesses, conditions or injuries will be handled on a case by case basis or as directed by the fire chief.
   2. In the event the member fails the IPAT it will be determined that the individual does not have the ability to perform each of the essential functions of their job, or they pose a risk of harm to self or others in the performance of such functions. The WMAFR will determine whether or not a reasonable accommodation exists that will remove the barrier to continued employment, and eliminate or minimize the potential risk of harm to the individual or others.
   3. For those who are cleared to return to work but with restrictions may be provided with light duty work or temporarily transferred to another department or program until such a time those restrictions are lifted. These options are however dependent upon funding availability and/or cooperation with other Tribal departments and programs.
      1. In the event funding is not available and/or temporary reassignment is not feasible or allowed, the member will remain on with the organization for a maximum period of 180 days, during which time that employee will be on leave without pay.
      2. After 180 days if the “with restrictions” has not been lifted, the member maybe released from employment.
   4. For those who are cleared to Return to Work by the physician for full duty without restrictions, following a pregnancy, an extended personal illness/condition, significant surgery and/or debilitating injury, and have passed their IPAT are afforded exemptions to the regular scheduled Quarterly Physical Ability Assessment as deemed reasonable by the deputy fire chief.
      1. It is the belief that an individual who has been on extended medical leave (e.g. maternity, leg fracture, etc.) may not be in good physical shape, even though they have passed their IPAT. The DFC will handle each case individually as to a time in which the firefighter will have to demonstrate that they are fit for duty.
   5. Personnel returning to work following a disciplinary action (e.g. suspension), military leave, or other extended non-medical leave may be required to complete a Quarterly Physical Ability Assessment prior to returning to work to show they are fit for duty.
      1. It is the belief that that if an individual takes leave for personal reasons, other than medical in nature, that they are capable to remain physically fit during that time they are on leave and should be able to pass any missed Quarterly Physical Ability Assessments that they missed during their absence.
7. **Disclaimer**
   1. The criteria listed within this policy for the periodic fitness assessments are by no means hard science. They are but a means to ensure that firefighters remain in the best shape possible for the job. NFPA 1583 *Standard on Health-Related Fitness Programs for Fire Department Members*, 2008 Edition understands this as they list no recommended testing parameters, but mere areas of attention (i.e. aerobic, muscle strength, flexibility, etc.). It is up to the authority having jurisdiction to develop the means to which the standard is best met.
   2. The WMAFR will continually review this policy with recommendations, comments and suggestion from its members.
8. **Historical Note**
   1. Final draft submitted November 11, 2010 with need for review. Recommendation from firefighters to provide a break from running every quarter and do something like the combat challenge (our IPAT). Pass/Fail times based upon a department average conducted by two shifts.
   2. February 8, 2011 provisions added to include the IPAT as an alternative to test aerobic capacity.
   3. March 15, 2013 re-draft was submitted to the chief’s for review based upon recommendations from firefighters and to clear up Return to Duty physical assessment requirements.
   4. Revision/redraft was conducted on May 20, 2013 to clarify additional language and to remove the 6 month suspension status for those who have failed the quarterly physical ability assessment.
   5. Recommendations made October 7, 2013 and sent out for further review with additional recommendations received.
   6. Final recommendations made on November 4, 2013 at a regular scheduled chief’s meeting and approved.

**Appendix A**

Muscle Strength and Endurance

**3 Mile Run/Jog**

Running/jogging reduces cardiovascular problems, as it strengthens the heart and reduces blood pressure at the same time. It is one of the most popular cardiovascular exercise that provides benefits to our heart. At the same time, your lungs also become strong by enabling you to inhale more oxygen. Thus, it results in an increase of the blood's capacity to transport more of those essential nutrients to your body.

**Push-Up Technique**

The push up may just be the best total body exercise that builds core strength. Done properly, it is a compound exercise that uses muscles in the chest, shoulders, triceps, back, abs and even the legs.

* Get on the floor and position your hands slightly wider than your shoulders.
* Raise up onto your toes so you are balanced on your hands and toes.
* Keep your body in a straight line from head to toe without sagging in the middle or arching your back.
* Your feet can be close together or a bit wider depending upon what is most comfortable for you.
* Lower yourself until your elbows are at a 90 degree angle or chest is 3-4 inches from the ground.
* Repeat for 25 repetitions within 60 seconds.

**Bicycle Crunches Techniques**

Bicycle Crunch Exercise came in at the top of the list of best exercises for the rectus abdominus. This is the conclusion of a study at San Diego State University that compared 13 common abdominal exercises in order to find which ones really strengthen the abs.

* Lie flat on the floor with your lower back pressed to the ground.
* Put your hands beside your head.
* Bring your knees up to about a 45-degree angle and slowly go through a bicycle pedal motion.
* Touch your left elbow to your right knee, then your right elbow to your left knee.
* Repeat for 60 repetitions (30 each side) within 120 seconds.

**Squat Thrust Techniques (Up Downs)**

Squat Thrust is a core exercise and excellent cardiovascular workout.

* Stand with feet together.
* Squat down and place your hands on the floor next to your feet.
* In an explosive movement, jump feet backwards into a push-up position, jump feet back between hands and stand up.
* Repeat for 30 repetitions within 120 seconds.

A burpee is a modified squat thrust that incorporates a jump and a push up. Try it for a better and harder workout.

**Walking Lunges Techniques**

Walking lunges allows you to put emphasis on the quadriceps and gluteus with the front leg and your rear strength and flexibility with the back leg. The emphasis on multiple muscles when performing this exercise makes walking lunges a fundamental component to any successful leg workout. As your strength and flexibility increases, you can begin to add extra weight by utilizing dumbbells or weighted bars. The additional weight will increase your stamina and strength while giving you an extra firm and elevated back side.

* Start at one end of the room and take a long stride forward with the right leg.
* Bend down so the forward knee is directly over the toes and at a 90 degree angle.
* Raise up and repeat with the other leg across the room.
* Repeat for 60 continuous (30 each on left and right) repetitions.

**Pull Ups Techniques (Optional)**

The pull up or chin up exercise is one of the most overlooked exercises for building upper body, back and core strength. Unfortunately, most athletes ignore this simple exercise during their regular strength training routine. Don't make that same mistake. It's one of the "must do" exercises no matter your fitness level.

The pull up bar should be at a height that requires you to jump up to grab it; your feet should hang free.

* Stand below the bar with your feet shoulder width apart.
* Jump up and grip the bar with an overhand grip, palms out.
* You may bend your knees and cross your ankles for a balanced position.
* Pull yourself up so your chin is level with the bar.
* Lower yourself so your elbows are straight.
* Repeat the movement without touching the floor.

**Jumping Jacks (Optional)**

Doing jumping jacks is still an excellent way to get into shape. Jumping jacks work your shoulders, back, thighs and calves. They're also good for your heart. The following steps will take you through this exercise.

* Begin by standing with your feet together and arms at your sides. Tighten your abdominal muscles to pull your pelvis forward and take the curve out of your lower back.
* Bend your knees and jump, moving your feet apart until they are wider than your shoulders. At the same time, raise your arms over your head. You should be on the balls of your feet.
* Keep your knees bent while you jump again, bringing your feet together and your arms back to your sides. At the end of the movement, your weight should be on your heels.
* Repeat the exercise, working in sets and resting briefly in between. As you become more fit, perform jumping jacks faster and for a certain length of time rather than in sets.

**Jump Rope (Optional)**

Jumping rope is an effective cardio exercise that works your arms, legs, and core, helps strengthen your bones, and improves balance.

There are many different variations to jump roping. Start off with the traditional hop and move to alternating foot jumps, high steps, and then to single foot jumps. By switching ropes you can also alter the speed in which you will have to jump.

Add weights to your ankles to get that additional resistance.

**Appendix B**

Flexibility

**Sit and Reach Test**

The sit and reach test is the most common way to measure lower back and hamstring flexibility. Because tightness in the low back and hamstrings is often related to muscle pain and stiffness, this test may help determine a person's risk for future pain and injury.

* Sit with both legs straight and feet flat against the surface of the measurement box.
* Overlap one hand over the other and, exhaling and dropping your head, reach forward as far as you can.
* Keep both knees straight throughout the reach.
* Take the best out of three attempts

**V Sit Reach**

This test measures the flexibility of the lower back and hamstring muscles. The test is very similar to the sit and reach test, though no box is required.

* With shoes removed, sit on the floor with the measuring line between their legs with the soles of their feet placed immediately behind the baseline, heels 8-12" apart.
* The thumbs are clasped so that hands are together, palms facing down and placed on measuring line.
* With the legs held flat by a partner, the subject slowly reaches forward as far as possible, keeping the fingers on baseline and feet flexed.
* After three practice tries, the student holds the fourth reach for three seconds while that distance is recorded. Make sure there are no jerky movements, and that the fingertips remain level and the legs flat.

**Trunk Rotation**

The purpose of this flexibility test is to measure trunk and shoulder flexibility, which is important for injury prevention and is particularly important in swimming, racquet sports and throwing and swinging sports.

* Mark a vertical line on the wall.
* Stand with your back to the wall directly in front of the line, with your feet shoulder width apart. You should be about arms length away from the wall, though you may need to adjust the distance from the wall once you start the test.
* Extend your arms out directly in front of you so they are parallel to the floor.
* Twist your trunk to your right and the touch the wall behind you with your fingertips, keeping your arms extended and parallel to the floor. You are allowed to turn your shoulders, hips and knees as long as your feet don't move.
* Mark the position where your fingertips touched the wall, and measure the distance from the line.
* A point before the line is a negative score and a point after the line is a positive score.
* Repeat for the left side with your feet in the same position.

**Groin Flexibility Test**

The purpose of this flexibility test is to measure the flexibility in the adductors. Adductors are muscles of the inner thigh that pull your legs together.

* Sit on the floor with your knees bent, feet flat on the floor and legs together.
* Let your knees drop sideways as far as possible keeping your feet together. The soles of your feet should be together.
* Grab your feet and pull your ankles as close to your body as possible.
* Measure the distance from your heels to your groin. Record the results.