

Utah Fire Service Certification System

APPARATUS DRIVER OPERATOR AERIAL



CERTIFICATION STANDARD

September 2007

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Apparatus Driver Operator Aerial Technical Committee

The Certification Council would like to recognize and extend a voice of appreciation to the following fire service professionals for their work on the ADO - Aerial certification standard. These individuals devoted many hours to reviewing the National Fire Protection Association (NFPA) 1002 standard, certification test bank, curriculum text books, and developing the skills for this standard.

Thank You...

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INTRODUCTION

The world we live in is changing so fast, and the many phases of the fire service are becoming so technical and complex that fire service training must be utilized to its maximum potential. Any overlap, fragmentation, and lack of basic structure must be eliminated. Standardization is the natural complement and necessity.

The fire service in Utah, through a state certification program, can meet the needs of future growth and establish uniformity by certification. We will then have more effective and efficient utilization of resources so as to provide the best possible fire protection service for all the citizens throughout the state of Utah.

The following certification requirements are based on the objectives listed in the National Fire Protection Association (NFPA) 1002 standard for *Fire Department Vehicle Driver/Operator*, 2003 Edition, Chapter 4, as verified and adopted by the Utah Fire Service Certification Council (UFSCC).

Through these national standards and certification, firefighters and fire departments have a tool to measure specific levels of skills, abilities and knowledge. The UFSCC believes that by participating in the certification program firefighters and fire departments will be better prepared to provide quality life safety and fire protection for their communities.

**In Memoriam,
September 11, 2001**

We pay tribute to the 343 members of FDNY who gave their lives to save civilian victims on September 11, 2001, at the World Trade Center. They are true American heroes in death, but they were also American heroes in life. We will keep them in our memory and in our hearts. They are the embodiment of courage, bravery, and dedication. May they rest in peace.

CERTIFICATION REQUIREMENTS

Entrance Requirements

In order to certify within the Utah Apparatus Driver Operator (ADO) - Aerial Apparatus program, departments/firefighters must fulfill the following requirements:

- 1- Complete entrance requirements.
- 2- Meet pre-requisites, UFSCC certified as ADO – Pumper.
- 3- Set up and maintain department records.
- 4- Train on the required written and practical objectives.
- 5- Pass a department "In House" practical skills examination.
- 6- Meet any other training requirements/prerequisites as defined by the certification Council.
- 7- Pass both written and practical skills examination administered by the certification Council.
- 8- Request ADO-Aerial certification.
- 9- Request recertification.

The UFSCC acknowledges the importance of and need for entrance requirements as listed in the NFPA 1001 standard on *Fire Fighter Professional Qualifications*. Many agencies and departments have existing policies, regulations, etc. already in place regarding these requirements. The handling of entrance requirements is a **LOCAL MATTER**, outside the authority and jurisdiction of the UFSCC.

The Council will not check, test, evaluate or determine how individual agencies meet these requirements. Some departments have found it necessary to waive any type of entrance requirements due to their own special needs. Since this is a local decision, this is permitted. However, due to the amount of physical, mental and emotional stress inherent in this profession. **The Utah Fire Service Certification Council strongly recommends very careful evaluation before altering or doing away with any entrance requirements.**

Physical Fitness Requirements

The requirements listed in NFPA 1001, Chapter 4 are:

- 1- Meet the minimum educational requirements established by the authority having jurisdiction.
- 2- The Utah Fire Service Certification Council Policy 11.3 requires that a candidate must be 18 years of age to be certified.
- 3- Meet the medical requirements of NFPA 1582, Standard on *Medical Requirements for Firefighters*.
- 4- Physical fitness requirements for entry-level personnel shall be developed and validated by the authority having jurisdiction. Physical fitness requirements shall be in compliance with applicable equal employment opportunity regulations and other legal requirements.

Additional Requirements

In addition, NFPA 1002 standard for *Fire Department Vehicle Driver/Operator Professional Qualifications*, 1998 edition, lists the following general requirements:

- 1- The fire department vehicle driver/operators shall be licensed to drive all vehicles they are expected to operate in accordance with Utah state law (NFPA 1002, 1-3.1).
- 2- The fire department vehicle driver/operator shall be subject to periodic medical evaluations, as required by NFPA 1500 standard on *Fire Department Occupational Safety and Health Program*, Section 8-1, medical requirements, to determine that the driver/operator is medically fit to perform the duties of a fire department vehicle driver/operator (NFPA 1002, 1-3.2).

Department Training Officers

In order for a department to enroll in the certification process, it is necessary for the department to assign training officers. It is recommended that the department assign at least two personnel as training officers to coordinate and provide certification training.

Department training officers shall be state certified at the level they are teaching. In addition, the certification Council strongly recommends that the training officer be state certified as a Fire Service Instructor I.

Department training officers will be responsible for certification training. Their primary responsibility will be to teach, evaluate, and in-house test department personnel on the manipulative skill requirements for each level of certification training.

Departments who do not have certified personnel to act as training officers for certification training should contact the Utah Fire and Rescue Academy at (801) 863-7700 or 1-888-548-7816 for assistance in setting up and monitoring certification training.

Remember, participation in the certification process is **VOLUNTARY**. Once you have enrolled, you can withdraw if desired.

DEPARTMENT **TRAINING**

Written Objectives

The position of an Apparatus/Driver for an aerial device is one that requires a high level of skill and knowledge. The training that is given to and received by ADO-Aerial candidates should be of the highest quality and degree. All training received must meet the requirements of NFPA 1002; Chapters 4 (2003 edition) and the skills as approved by the UFSCC contained within the Utah standard. All training received must be documented and recorded on a training record (Appendix A). All testing for ADO-Aerial will be conducted following the policies and procedures of the UFSCC.

Training for ADO-Aerial is conducted at the department level or could be received through a joint training agreement between departments on a regional level. Regardless of where the training is received it must prepare the candidate to be a competent and effective Aerial Apparatus Operator.

The course material should be referenced to the following textbooks to prepare the candidate to successfully pass the state certification examination.

Written objectives for ADO-Aerial Apparatus are covered in the following text:

REFERENCE LIST FOR AERIAL

1. *NFPA 1002 Fire Apparatus Driver/Operator Professional Qualifications, 2003*
2. *IFSTA, Aerial Apparatus Driver/Operator Handbook, 1st Edition, 1st Printing*
3. *IFSTA, Pumping Apparatus Driver/Operator Handbook, 2nd Edition, 1st Printing*

These textbooks are available from various fire service bookstores. A current list of IFSTA textbook sources is available by calling the certification office at 1-888-548-7816.

There are numerous methods departments have used to help prepare their personnel for the written examination. Considering the high level of skill and knowledge that is required of an Apparatus Driver Operator, the Council recommends that the candidate participates in a comprehensive class and receive instruction on both manipulative and written requirements.

Manipulative Objectives

Each of the manipulative skill objectives shall be completed swiftly, safely and with competence as defined below:

- **Swiftly** - Each manipulative skill objective must be completed within the allotted time.
- **Safely** - Each manipulative skill objective must be completed safely. Conduct that could injure an individual or damage to see that it is safe and functional.
- **Competence** - Each manipulative skill objective is performed in accordance with the Utah standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS manipulative skill objectives.

Department Training Record

Each participant shall have a training record on file with the department, which indicates that he/she has trained on all manipulative skill objectives. This record shall be signed off or initialed by a department training officer. Training records must have the date and the Instructors signature and/or initials. Departments may set up their own training records or use the one provided in Appendix A.

Department "In House" Manipulative Skills Examination

At the completion of the department's manipulative skills training, the department is required to hold an "in-house" skills examination for the level being trained. This is a comprehensive "in house" skill test conducted by the department training officers. This test is to ensure that skill mastery has been maintained from the beginning to the end of the training process, and to prepare participants for the state examination. Training officers may utilize other personnel to assist in administering the exam; however, they must be certified at the level they are in-house testing.

Proctor instructions for the examination are in Appendix D. In-house testers shall follow the proctor instruction sheet to provide for uniformity and fairness during the exam. It is recommended that participants be given two attempts at any skill. **If they fail on the second try, then they have failed the evaluation and are required to go through additional training by the department trainer.** No training, teaching, or coaching is allowed during the test. After the evaluation, using the test to teach and train is recommended.

If manipulative skill weaknesses are evident, the department should conduct additional training and hold a new department "in house" manipulative skill examination to ensure their personnel has fully mastered all required skills. Only those individuals who successfully pass the department skill test will be allowed to participate in the manipulative skill "spot check" examination. Department records must show that all participants have successfully passed the "in-house" exam.

CERTIFICATION EXAMINATIONS

Written Examinations

After completion of the training process the Chief/Administrator can request testing for the department. Using the "Certification Examination Request" form in Appendix E, Chief/Administrator may request a written and manipulative test for certification. There is a testing/certification fee of \$40.00 per applicant that will be due at the time of certification. The testing fee covers three attempts of the written examination and three attempts of the manipulative skill "spot check" examination. A separate application must be sent to the certification Council for each attempt. Request forms must reach the certification Council no later than 30 days prior to the examination date. The entire examination process must be completed within one year of the first exam date.

The written examination is a randomly generated 100-question test covering the written objectives of the ADO - Aerial Apparatus standard. This is a closed book test. No calculators or other such devices will be allowed for use on the written examination. A minimum score of 70% is required to pass the certification exam. Firefighters failing the first attempt of the written exam will be permitted to retest no sooner than 30 days from the date of the last exam. Three attempts are given to pass the exam. If a participant fails the written examination three times, he/she has failed the certification process and must wait 1 year from the date of the last failed exam before re-entering testing. Exam pass/fail results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

SAMPLE WRITTEN EXAMINATION QUESTIONS:

Being aware of all that is happening at the sides and to the rear of the apparatus are techniques of:

- a- aggressive driving
- b- offensive driving
- c- defensive driving**
- d- responsive driving

Large scale defensive operations often require the use of:

- a- elevated master streams.
- b- large diameter hose.
- c- large fire streams.
- d- all of the above.**

Manipulative Skills "Spot Check" Examination

This is a two step examination. A department record check and the manipulative skills "spot check" examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts the examination.

Training records are checked. If records are inadequate, corrective action must be taken before proceeding to the next step. The records must meet minimum requirements and are checked for the following:

- 1- Participant has been trained in each manipulative skill for the level being evaluated.
- 2- A department training officer has signed off each manipulative skill.
- 3- Each trainee has passed a department "in-house" manipulative skills examination.

The manipulative skill "spot check" examination is graded on a 100% pass/fail basis. The test is graded in the following three areas:

- **Swiftly** - Each manipulative skill objective must be completed within the allotted time.
- **Safely** - Each manipulative skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **Competence** - Each manipulative skill objective is performed in accordance with the Utah Standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS manipulative skill objectives.

Participants are "spot checked" on three manipulative skills. No prior notification of the skills being tested will be given. Participants are given two attempts if necessary to perform each skill. If they fail on the second attempt, the applicants must wait 30 days before the third and final attempt. Participants taking third attempts will test on the skill they missed plus an additional skill from the section of the standard they failed during the previous two attempts. **No training, teaching, or coaching is allowed during this state test.**

During the manipulative examination a SPOTTER will be used. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. A spotter will NOT be allowed to assist in directing the driver when to stop the apparatus during the test.

Participants who have failed the third attempt of the written examination or the manipulative skills examination have failed the certification process and must wait 1 year from the date of the failed third attempt to re-enter state testing. The participant will begin testing with a new 1st attempt of the written examination.

ADO-AERIAL APPARATUS CERTIFICATION

Prerequisites for Certification

Re-certification

*For more information on
Utah Firefighter
Certification contact the:*

When all requirements for certification have been met, applicants are eligible to be certified. The Chief/Administrator may apply to the Utah Fire Service Certification Council for certification for those participants who have successfully completed the certification training/testing process. Request for state certification will be submitted to the Council using the "Request for Certification" form provided in Appendix E. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Those applicants who have met the requirements are issued a wallet card, certificate and patch. These are sent to the Chief/Administrator for disbursement. The cost for testing and certification is \$40.00 per applicant and shall be paid at the time of application for certification.

Applicants for certification at the Apparatus Driver Operator – Aerial level must be state certified by the Utah Fire Service Certification Council at the ADO-Pumper level. Certification will not be issued until participants have fulfilled this requirement.

Certification at ADO-Aerial level is valid for a three-year (3) period. Each certified ADO-Aerial may renew certification by having the Chief/Administrator of the Participating Agency submit an "Application For Re-certification" provided in Appendix E. There is a re-certification fee of \$ 5.00 per person that should accompany the application.

Each certified ADO-Aerial shall participate in at least 36 hours of structured class and manipulative training per year to maintain competency. A total of 108 hours of training is required during the previous certification period.

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ADO/AERIAL CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- Each participant has met requirements listed in NFPA 1001, Chapter 4 and/or those established by the authority having jurisdiction.
- Each participant has met the additional requirements as required by NFPA 1002, Chapter 4:

- 1- Valid Driver License.
- 2- Medical evaluation as required by NFPA 1500, Section 8-1.

DEPARTMENT TRAINING RECORDS:

- Each participant has a training record on file with the department that shows:

- 1- A learning experience in each manipulative skill objective.
- 2- Dates of training.
- 3- Initials of instructors.

- Each participant has trained on the ADO-Aerial level written objectives.

DEPARTMENT "IN HOUSE" MANIPULATIVE SKILLS EXAMINATION:

- Each participant has successfully completed an "In House" manipulative skills examination.
- Results of exam are documented in department training records.

ADDITIONAL TRAINING /PREREQUISITE REQUIREMENTS:

- Each participant is state certified through the UFSCC at the Apparatus Driver Operator - Pumper level.

CERTIFICATION EXAMINATIONS:

- Each participant has passed the UFSCC written examination.
- Each participant has passed the UFSCC manipulative skill "Spot Check" examination administered by an approved certification tester.

ADO - AERIAL CERTIFICATION:

- Chief/Administrator request certification for participants using the "Request For Certification" form.

ADO-Aerial Apparatus Manipulative Skill Objectives

PREVENTIVE MAINTENANCE

- 1. Perform and operate (when necessary to determine operational readiness) routine tests, inspections, and servicing functions on specified systems and components and document results on appropriate forms.**

A. For a fire department Apparatus

Reference: NFPA 1002, 2003 Edition, 4.2.1(a)(b), 4.2.2 (a)(b), 4.3.7 (a)(b).

Condition: Given a fire department aerial apparatus, inspection form, or check-off sheet (Sample check-off sheet provided in Appendix B).

Competence:

- Check batteries for fluid level and corrosion (if **maintenance** free, check indicator for correct color).
- Check braking system for fluid level/drain air tanks of water.
- Check coolant system for fluid level, leaks, cleanliness.
- Check electrical system for corrosion and tight connections.
 - Siren and other warning devices.
 - Headlights, running lights, and turn signal flashers.
 - Emergency warning lights.
- Check fuel level.
- Check hydraulic system for fluid level and leaks.
- Check engine oil for fluid level and leaks.
- Check transmission fluid level (if applicable).
- Check other fluid levels as appropriate.
- Check tires for pressure and wear.
- Check steering system for range of motion and looseness.
- Check engine belts for tightness and wear.
- Check tools, appliances, and equipment, fixed equipment, lighting.
- Check windshield wiper blades.
- Start apparatus and monitor gauges and other control devices.
- Check all items off on department check-off sheet (see Appendix B)
- Identify, document, and report deficiencies found.

Time: 20:00 minutes.

B. Fire Department Aerial Device system.

Reference: NFPA 1002, 2003 Edition, 6.1.1 (a)(b)

Condition: Given a fire department aerial apparatus, determine readiness of aerial device on an aerial apparatus. Department check sheets may be used. (Sample check-off sheet provided in Appendix B).

Competence:

- Check cable system (if applicable).
- Check aerial device hydraulic system(s).
- Check hydraulic fluid level.
- Operate PTO shift.
- Check slides and/or rollers.
- Check stabilizing system(s).
- Check aerial device safety systems / interlocks.
- Check leveling gauges.
- Check breathing air system (if applicable).
- Check communication system.
- Check nozzle/waterway.
- Check tools, appliances, and equipment, fixed equipment, lighting.
- Identify, document and report deficiencies found.

Time: 20:00 minutes.

DRIVING OPERATIONS

NOTICE: The driving skills in this standard are used to determine participant's qualifications to become certified by the Utah Fire Service Certification Council at the level of ADO-Aerial Apparatus. The passing of these skills does not qualify a participant for any other certification or licenser, such as a Commercial Drivers License (CDL) and is not intended to certify, verify or approve an individual's ability to drive fire apparatus on state or federal highways. The responsibility to determine who will drive fire apparatus resides with the local fire department or the authority having jurisdiction.

2. Operate a fire department aerial apparatus so that the vehicle is safely operated in compliance with all applicable state and local laws, departmental rules and regulations.

Reference: NFPA 1002, 2003 Edition, 4.3.1(a)(b), 4.3.6(a)(b), 6.1.3 (a)(b)
NFPA 1500, 1992 Edition, 4-2.
Utah Criminal and Traffic Code 1993 Edition, Chapter 41-6.

Condition: Given a fire department aerial apparatus and a predetermined route on a public way that incorporates the maneuvers and features specified below, and that the driver/operator is expected to encounter during normal operations:

NFPA 1002 4.3.1

- 4.3.1(1) Four left turns and four right turns
- 4.3.1(2) A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length.
- 4.3.1 (3) One through-intersection and two intersections where a stop has to be made.
- 4.3.1(4) One railroad crossing
- 4.3.1(5) One curve, either left or right
- 4.3.1(6) A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes.
- 4.3.1(7) A downgrade steep enough and long enough to require down-shifting and braking.
- 4.3.1(8) An upgrade steep enough and long enough to require gear changing to maintain speed
- 4.3.1(9) One underpass or a low clearance or bridge.

Note: Conditions 1 – 9 may be modified if the jurisdiction does not have a means to train on the skill due to geographic limitations, manufacture's recommendations. In the absence of these limitations and prohibitions, all of the skills should be trained on and certified to.

Competence:

- Adjust and use mirrors.
- Use seat belts for all occupants.
- Observe all posted speed limits.
- Maintain safe following distances.
- Maintain control of the vehicle while accelerating, decelerating, and turning.
- Stop fully at all stop signs or stop lights.
- Use turn signals.
- Keep apparatus in correct lane of travel.
- Monitor all gauges so vehicle is operated within manufactures specifications.

Time: 30:00 minutes.

SPOTTER INSTRUCTIONS: Skills 3 through 6 will be tested on a controlled and unobstructed training ground. Duties of the spotter for testing purposes may be different from the spotter's duties during normal operations. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. Because the training ground is a controlled and unobstructed environment, the spotter will NOT be allowed to assist in directing the driver when to stop the apparatus during the test unless damage may occur. It is the intent of certification to assess whether the driver is aware of the dimensions of the apparatus.

3. Back a vehicle from a roadway into restricted spaces on both the right and/or left sides of the vehicle. (Alley Dock)

Reference: NFPA 1002, 2003 Edition, 4.3.2(a)(b), 6.1.2 (a)(b).
* See Appendix C for diagram of course and instructions.

Condition: Given a fire department aerial apparatus, spotter, cones, and a restricted space 12 ft. in width, requiring 90-degree right or left-hand turns from the roadway, so that the vehicle is parked within the restricted area without having to stop, and adjust travel and without striking cones. A marker should be placed on the ground, on the left side of the apparatus, to mark where the front left tire should be spotted, and where to stop the apparatus and park.

Competence:

- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Stop apparatus by aligning center of left tire within 6" of the center of the mark on the ground indicating where the apparatus should be stopped and parked.
- Completed skill correctly without striking cones.

Time: 5:00 minutes

4. Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)

Reference: NFPA 1002, 2003 Edition, 4.3.3(a)(b), 6.1.2 (a)(b).
* See Appendix C for diagram of course and instructions.

Condition: Given a fire department aerial apparatus, spotter, cones, a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping and without striking cones.

Competence:

- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without striking cones.

Time: 5:00 minutes

5. Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)

Reference: NFPA 1002, 2003 Edition, 4.3.4(a)(b), 6.1.2 (a)(b).
*** See Appendix C for diagram of course and instructions.**

Condition: Given a fire department aerial apparatus, spotter, cones, area where vehicle cannot make a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without passing over or striking cones.

Competence:

- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without striking cones.

Time: 5:00 minutes

6. Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)

Reference: NFPA 1002, 2003 Edition, 4.3.5(a)(b), 4.3.6(a)(b), 6.1.2 (a)(b).
*** See Appendix C for diagram of course and instructions.**

Condition: Given a fire department aerial apparatus, cones, course that requires the operator to move through areas of restricted horizontal clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings without striking cones.

*** Width measurements for this skill may be modified due to the varying widths of apparatus. Modification should be based on the track width of the apparatus being used for training. To obtain a final width, measure the apparatus being used and add 2 inches on each side the track width and that will be the final width for training and testing purposes.**

Competence:

- Adjust and use mirrors.
- Driver/passengers wearing seat belts.
- Completed skill correctly without stopping or striking cones.
- Place the apparatus bumper within 18 inches of the cone at the finish line without crossing over it.

Time: 5:00 minutes

AERIAL OPERATIONS

7. **Maneuver and position an aerial apparatus so that the apparatus is properly positioned for safe aerial device (PLATFORM or LADDER) deployment for rescue and ventilation activities. Each skill shall be operated from a different control station on the apparatus (Turntable, Panel, Rear Bumper, or Remote wire or wireless controls). The operator will be able to successfully position an aerial device to a:**

A. Window.

Reference: NFPA 1002, 2003 Edition, 6.2.1 (a)(b), 6.2.2 (a)(b), 6.2.3 (a)(b).

Condition: Given an aerial apparatus, an incident location, an assignment, and 2-firefighter team (Operator and Spotter)

Competence:

- Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain).
- Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize).
- Set park brake, engage PTO, (chock wheels if applicable).
- Verbalize assessment of surface conditions for stabilization purposes.
- Stabilize apparatus using stabilizing devices, use leveling gauge.
- Switch selector valve to aerial device – if not automatic
- Verbalize weight restrictions while operating aerial device.
- Elevate, rotate, extend and lower aerial device (AERIAL LADDER or PLATFORM device) level with windowsill for RESCUE operations.
- Elevate, rotate, extend and lower aerial device (AERIAL LADDER or PLATFORM) to side of window frame for VENTILATION operations.

Time: 7:00 minutes

B. Roof.

Reference: NFPA 1002, 2003 Edition, 6.2.1 (a)(b), 6.2.2 (a)(b), 6.2.3 (a)(b).

Condition: Given an aerial apparatus, an incident location, an assignment, and 2-firefighter team (Operator and Spotter)

Competence:

- Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain).
- Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize).
- Set park brake, engage PTO, (chock wheels if applicable).
- Verbalize assessment of surface conditions for stabilization purposes.
- Stabilize apparatus using stabilizing devices, use leveling gauge.
- Switch selector valve to aerial device – if not automatic.
- Verbalize weight restrictions while operating aerial device.
- **AERIAL LADDER:** elevate, rotate, extend device and lower to target area, extended 6 feet above roof (following manufactures recommendation for supported and unsupported positions), for RESCUE or VENTILATION operations.
- **PLATFORM:** elevate, rotate, extend and lower platform level with roof for RESCUE or VENTILATION operations.

Time: 7:00 minutes

C. Elevated Master stream.

Reference: NFPA 1002, 2003 Edition, 6.2.1 (a)(b), 6.2.2 (a)(b), 6.2.3 (a)(b) 6.2.5 (a)(b)

Condition: Given an aerial apparatus, an incident location, an assignment, and 2-firefighter team (Operator and Spotter).

Competence:

- Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain).
- Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize).
- Set park brake, engage PTO, (chock wheels if applicable).
- Verbalize assessment of surface conditions for stabilization purposes.
- Stabilize apparatus using stabilizing devices, use leveling gauge.
- Switch selector valve to aerial device – if not automatic.
- Verbalize weight restrictions while operating aerial device.
- Establish water supply to apparatus – spotter may assist.
- Activate water flow to nozzle
- Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP (if equipped with a pump)
- Flow effective water stream for 1 minute, adjust nozzle (pattern or position).
- Verbalize correct intake pressure required (within +/- 10 psi) and method used to determine intake pressure (if not equipped with a pump).

Time: 7:00 minutes

8. Lower an aerial device using the emergency operating system so that the aerial device is safely lowered to its bedded position. (Simulated emergency)

Reference: NFPA 1002, 2003 Edition, 6.2.4

Condition: Given an aerial apparatus and a situation that would require emergency action (i.e., loss of power, engine failure), 2-firefighter team (operator and assistant). Apparatus engine and main battery switch should be off.

Competence:

- Verbalize notifying Incident Command of situation, loss of apparatus power.
- Demonstrate activation of auxiliary system as per manufacture recommendations.
- Verbalize procedure to raise, retract, rotate, and lower aerial device to bedded position using auxiliary system.
- Verbalize procedure to lift outriggers using auxiliary system.

Time: 15:00 minutes

APPENDIX - A
TRAINING RECORD

**UTAH FIRE SERVICE CERTIFICATION SYSTEM
 APPARATUS DRIVER OPERATOR - AERIAL**

NFPA 1002, 2003 Edition

*ADO - AERIAL
 TRAINING RECORD / IN-HOUSE COMPREHENSIVE EXAM*

NAME: _____ **DEPARTMENT:** _____

SECTION	TRAINING RECORD		IN-HOUSE COMP EXAM			MANIPULATIVE SKILL DEMONSTRATE
	DATE	INST	DATE	INST	PASS	
PREVENTIVE MAINTENANCE						1A- Perform and document routine tests, inspections, and servicing functions for a fire department apparatus.
						1B- Perform and document routine tests, inspections, and servicing functions for the Aerial device of apparatus.
DRIVING OPERATIONS						2- Operate a fire department pumper so that the vehicle is safely operated in compliance with all state and local laws, department rules and regulations.
						3- Back a vehicle from a roadway into restricted spaces on both right and left sides of the vehicle. (Alley Dock)
						4- Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)
						5- Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)
						6- Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)
AERIAL OPERATIONS						7A- Positioning aerial device at Window for rescue or ventilation activities.
						7B- Positioning aerial device at Roof for rescue or ventilation activities.
						7C- Positioning aerial device for Elevated Master Stream operations.
						8- Lower aerial device using Emergency Operation system.

APPENDIX - B
WEEKLY VEHICLE REPORT

APPENDIX - C
DRIVING SKILLS DIAGRAMS / INSTRUCTIONS

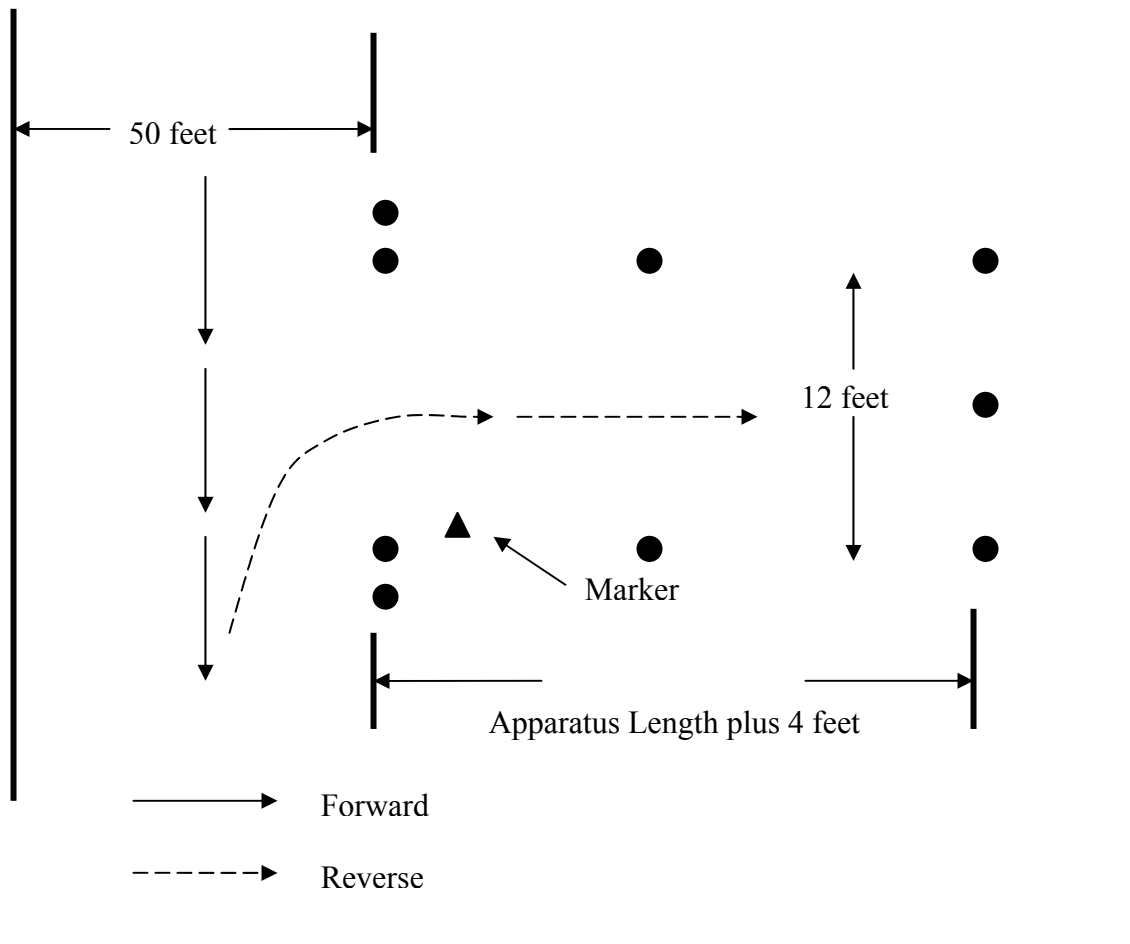
Alley Dock

The Alley Dock measures a driver's ability to drive past a simulated dock or stall, back the apparatus into the space provided, and stop smoothly.

Instructions: Drive past the stall on either the left or right, then back the apparatus into the restricted area without having to stop and pull forward and without striking cones.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area. The front bumper may not pass over the border of the 50ft roadway.

* Measure distance between cones from the base of the cones.



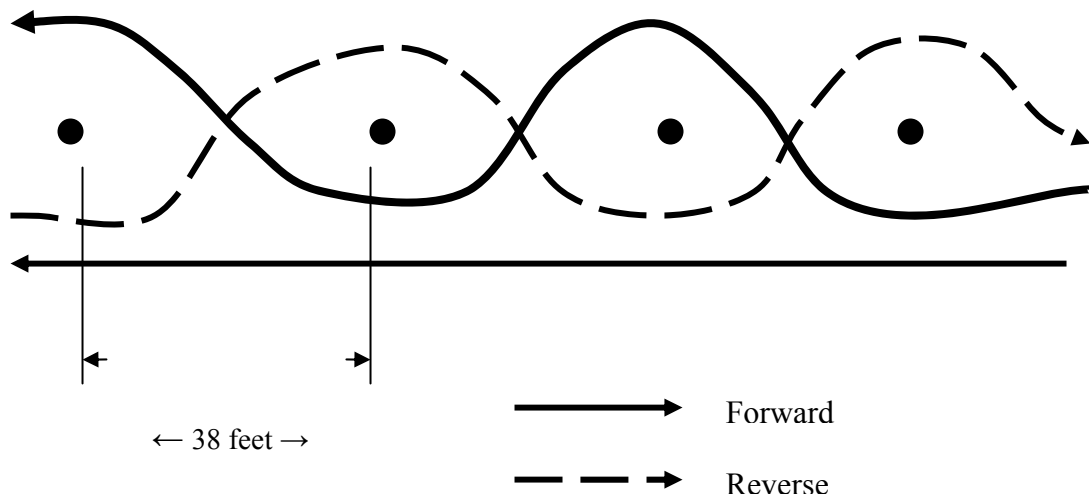
Serpentine

The Serpentine exercise measures a driver's ability to steer the apparatus in close limits without stopping.

Instructions: The driver will drive the apparatus along the left side of the cones in a straight line and stop just beyond the last cone. The driver then should back the apparatus between the markers by passing to the left of cone #1, to the right of cone #2, to the left of cone #3, and to the right of cone #4. At this point the driver should stop the vehicle and then drive it forward between the markers by passing to the left of cone #4, to the right of cone #3, to the left of cone #2 and to the right of cone #1.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the base of the cones.



Diminishing Clearance

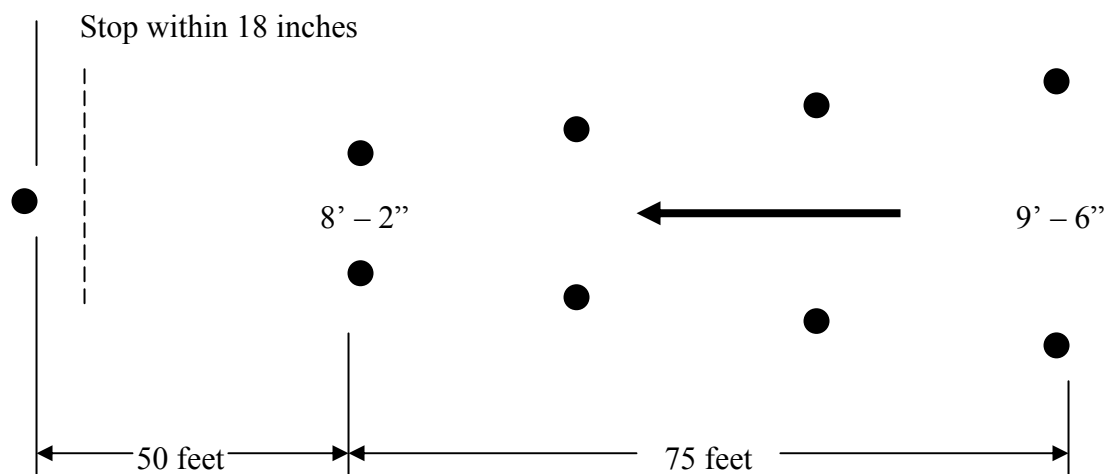
The Diminishing Clearance exercise measures a driver's ability to steer the apparatus in a straight line, to judge distances from wheel to object and to stop at a finish line.

Instructions: The course is created by arranging 2 rows of cones to form a lane 75 feet long. The lane varies in width from 9 feet 6 inches to a diminishing clearance of 8 feet 2 inches. The driver should maneuver the apparatus through this lane without touching the cones. The apparatus should be stopped at a finish cone 50 feet beyond the last cone within the bumper of the apparatus within 18 inches of the finish cone. No part of the apparatus should protrude beyond this point.

NOTE: The width of this skill may be modified based on the apparatus being used for training and testing. The final set of cones should be two (2) inches from each front tire of the apparatus. For example, if an apparatus has a wheel base of 8 feet 4 inches wide then the final set of cones should be 8 feet 8 inches.

*Establish a centerline mark off 75 feet, set the two ends of the Alley up and then sight in the middle cones to line them up. The Alley is in a "V" shape, one side is not straight with the other side angled.

*Measure distance between cones from the base of the cones



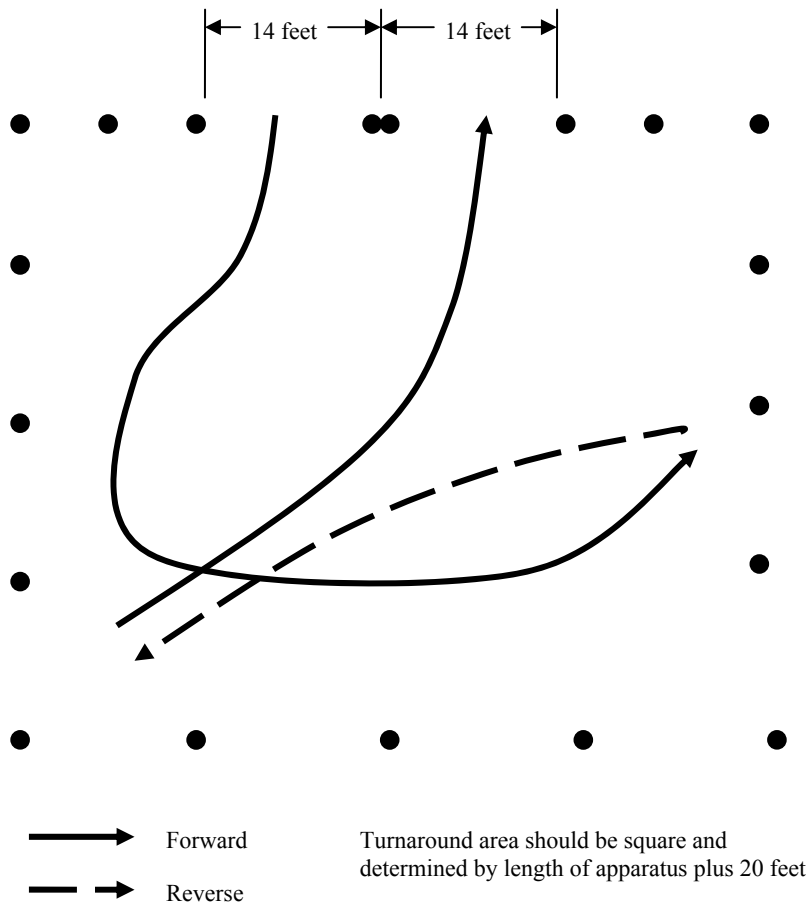
Confined Space Turnaround

This exercise measures the driver's ability to turn the vehicle around in a confined space without striking obstacles.

Instructions: The course is created by making a square area based on the length of the aerial apparatus plus 20 feet. The entry and exit width is 14 feet. The driver moves into the area from the entry point, turns the vehicle 180 degrees, and leaves the area through the exit. There is no limitation on the number of times the driver has to maneuver the vehicle to accomplish this skill, but no portion of the vehicle should extend over the boundary lines of the space and no cones shall be hit.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the base of the cones.



PENDIX - D
IN-HOUSE PROCTOR INSTRUCTIONS

Proctor Instructions for “IN-HOUSE” Comprehensive Examination

As the training officers for your department you are authorized by the Certification Council to conduct the 100% skills test for this level of certification. You must be certified to the level that you are testing, i.e...If you're FF2 you can test both FF1 and 2, Awareness and Operations.

***PRIOR TO CONDUCTING THE TEST, REVIEW TRAINING RECORDS**

It is important that before doing this “IN-HOUSE” exam that the candidate has completed training in all areas for the level being tested.

***SAFETY OFFICER SELECTED AND BRIEFED**

Select a Safety Officer to assist you during the test. This person, if possible, should not be taking the same test that is being given. The Safety Officer will not assist with the testing process. The Safety Officer is there to protect the Candidates from injury during the testing process.

By using the following instructions you will be able to evaluate the skills being tested and determine the candidate's readiness for the State “Spot Check” exam.

1 - Keep in mind that this is a TEST and there should be NO COACHING or TRAINING during the testing process. If a candidate fails to perform a skill, that skill will count as a first attempt failure and they will be given a second attempt. If they fail a second attempt, time they need to be retrained on that skill and tested again. Only **qualified** candidates that have passed with **100%** should be allowed to take the state SPOT CHECK Exam.

2 - Before beginning that testing process conduct a meeting with all candidates and review the testing process. Explain that this is a test and that the same process being used for the “In-House” will be used during the state exam.

3 - If possible, designate two separate areas for students testing. One area for those who are in the testing process and one area for those who have not yet begun the testing process. If separate areas are not available, make sure someone is in the room to ensure that students do not discuss the testing material. Make sure these areas have no training manuals, or other reference materials for students to look at while waiting testing.

4 - To evaluate a candidate's performance use the following as a guide.

- a. The skill is completed in the allotted time,
- b. Competence is shown by completing all performance criteria,
- c. Safety is shown while completing the skill

5 - At each test station the Tester will read the Skill to be demonstrated, the Condition to be met and the Time limit to complete each skill. This information is contained in the skill section of each standards packet. Do this with each student as they come to each testing stations. Ask for any questions. As each skill is tested and completed, sign it off in the section provided on the candidates training record.

By conducting the “In-House” test in the manner, you will prepare your candidates to successfully pass the State “Spot Check” exam. This will also assure that training records are current and that only those who are truly prepared take the Certification Examination.

APPENCIX - E
CERTIFICATION FORMS

Utah Fire Service Certification Council

EXAMINATION REQUEST AND/OR CERTIFICATION - RE-CERTIFICATION REQUEST

Please complete all information on **BOTH** sides of this form and return to the Utah Fire Service Certification Council at least **30 days** prior to the requested examination date. A separate request **MUST** be made for each level of certification exam desired and for each exam date.

Department Information

Department Name: _____

EXAMINATION REQUEST (Place an "X" in the boxes that apply)

Written **Initial Exam** **2nd attempt** **3rd attempt** _____
Requested Date / Time

Manipulative **Initial Exam** **2nd attempt** **3rd attempt** _____
Requested Date / Time

Number of persons taking **WRITTEN** Exam: _____ Number of persons taking **MANIPULATIVE** Exam: _____

Examination requested to be conducted at: _____

Street Address: _____ City _____ Zip _____

Certification Exam requested (Level): _____

By signing below, we acknowledge that training records exist to support that each individual who will attend the exam has received a learning experience in each subject area required for testing and has met all other requirements for the level being examined for as specified in the Certification Policy and Procedures. Department requesting the above exam will have appropriate space and safe accommodations and equipment for all written and manipulative skills.

Chief or Administrator Signature

Training Officer Signature

Chief or Administrator Name (typed or printed)

Training Officer Name (typed or printed)

Department Mailing Address

Daytime Telephone #

City

State

Zip

Evening Telephone #

CERTIFICATION / RE-CERTIFICATION REQUEST

CERTIFICATION **RE-CERTIFICATION** (Place an "X" in the boxes that apply)

The following department or agency requests the Utah Fire Service Certification Council certify/re-certify the individuals listed on the reverse side of this form.

Department Name: _____

By signing below, I attest that the individuals listed on the reverse side of this form have completed all requirements for certification as defined in the Policies and Procedures of the UFSCC for Certification or Re-Certification.

Chief or Administrator Signature

Daytime Telephone #

Evening Telephone #

Chief or Administrator Name (typed or printed)

Department Mailing Address

City

State

Zip

EXAMINATION AND CERTIFICATION FEES

Fees are billed when certification is requested. (Examination fee \$20 + Certification fee \$20) (Re-certification fee \$5.00)

Department Name: _____ Date: _____

For Testing: Please type or print names and birthdates of participants who will be taking the examination.

For Certification/Re-certification: Please type or print names as they should appear on each applicant's card and/or certificate. If this is for recertification, print "RECERT" on the level requested line.

Applicant Name	Birthdate (mm/dd/yyyy)	Level Requested
1 _____	_____ - _____ - _____	_____
2 _____	_____ - _____ - _____	_____
3 _____	_____ - _____ - _____	_____
4 _____	_____ - _____ - _____	_____
5 _____	_____ - _____ - _____	_____
6 _____	_____ - _____ - _____	_____
7 _____	_____ - _____ - _____	_____
8 _____	_____ - _____ - _____	_____
9 _____	_____ - _____ - _____	_____
10 _____	_____ - _____ - _____	_____
11 _____	_____ - _____ - _____	_____
12 _____	_____ - _____ - _____	_____
13 _____	_____ - _____ - _____	_____
14 _____	_____ - _____ - _____	_____
15 _____	_____ - _____ - _____	_____
16 _____	_____ - _____ - _____	_____
17 _____	_____ - _____ - _____	_____
18 _____	_____ - _____ - _____	_____
19 _____	_____ - _____ - _____	_____
20 _____	_____ - _____ - _____	_____