

Tempe Fire Department Policies and Procedures Wildland Fire Team (Operations and Deployment)

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Purpose

The purpose of this document is to establish policies and procedures for the organization and deployment of the Tempe Fire Department Wildland Fire Team.

Scope

The Tempe Fire Department (TFD) will attempt to support, when requested, the Forestry Division of the Arizona State Land Department (ASLD), during times of high wildland fire activity. This support is established through an Inter-Governmental Agreement (IGA) between the City of Tempe and the State of Arizona. The IGA is renewed every two years with the Phoenix District Forester.

In the western United States, wildfires can quickly become large scale events requiring the assistance of many local, state and federal fire agencies. The Tempe Fire Department recognizes that the protection of life and property can quickly escalate to require a state or nationwide response. The Tempe Fire Department will attempt to fill requests by the Arizona Interagency Fire Center (AIFC), which may include apparatus with TFD personnel, or with qualified personnel who may be requested individually for state staffing needs.

The IGA also allows for the assistance of state resources to the City of Tempe. The State Fire dispatch center (AIFC) and/or the Phoenix District Forester should be contacted when possible assistance by the state is needed. Resources include fire fighting equipment, heavy machinery equipment (Dozers), Water Tenders, aircraft, personnel or other disaster assistance resources.

Organization

The TFD Wildland Fire Team will follow the nationally recognized guidelines of the National Wildfire Coordinating Group (NWCG). Personnel will be trained to meet at a minimum, the Fire Fighter Type 2 (FFT2) requirements in wildland fire fighting to be considered qualified under the National Interagency Incident Management System (NIIMS). Under this system, personnel qualifications will be annually updated and certified individuals issued a NIIMS Incident Qualifications card ("Red Card").

The wildland fire program will be organized by the Wildland Fire Coordinator and under the supervision of the Personnel and Safety Battalion Chief. During assignments, personnel shall comply with all Tempe Fire Department safety practices and procedures according to current department policy.

Deployment

Staffing of equipment assigned to a state or federal incident will follow the current Arizona State Fire Management agreement, and current Tempe Fire Department policy.

Deployment Types:

- A Type I engine deployment staffed with a Fire Captain, an Engineer or acting Engineer, and (2) Fire Fighters.
- Individual EMT or Paramedic with EMS equipment for fire line or base camp support.
- Individual fire personnel for state staffing needs.

It is State Fire policy that each engine be staffed with a qualified Engine Boss. In the event that a current TFD member qualified as an Engine Boss is unavailable, the AIFC can attempt to provide one. The wildland fire coordinator or on-duty Battalion Chief can also call the Central Arizona Wildland Response Team (CAWRT) coordinated through the Peoria Fire Department. Some of the participating agencies in the CAWRT are Peoria FD, Mesa FD, Chandler FD, Apache Junction FD, or Black Canyon City FD.

On TFD engine assignments, one or more crewmembers should be an Arizona certified paramedic.

Personnel will be called based upon a previously established team seniority list. After dispatch, once a crew has been deployed for a period of two days (48 hours), the crew will then drop to the bottom of the pick list. If a crew is cancelled or demobilized prior, those members will remain on the top of the pick list. Personnel need to be able to respond to and depart station #2 within one hour.

TFD members working as state employees need to notify the Personnel and Safety BC or On-Duty BC when a request for them to remain assigned to an incident will require a switch to TFD deployment status.

The AIFC will contact the on duty Battalion Chief by phone, and request the particular resource and/or personnel. The on duty BC will then make the appropriate arrangements via TeleStaff or direct phone call, and prepare any apparatus. The following dispatch information should be recorded:

1. Fire Name and Number
2. Resource Order Number
("E" number for equipment or "O" number for personnel; Example: E-11)
3. Meeting or check-in location
4. Meeting or Check-in date and time
5. Radio frequencies
6. Telephone/Cell phone numbers
7. Strike Team/Task Force Leader name and radio ID (if applicable)
8. Name of the Incident Commander

The On-Duty Battalion Chief should contact the Personnel and Safety Battalion Chief to make arrangements for a deployment. The On-Duty BC will notify the department through E-mail of the resources and personnel deployed. The Personnel and Safety Chief will notify the Support Service Chief, Assistant Chief (Operations) and the Fire Chief.

No Tempe Fire Department member will be deployed for wildland duty with the State Land Department without the approval of the Fire Chief or Acting Fire Chief

When incident activity is high, the use of an "Expanded Dispatch" system is often used. In this situation, State Fire Dispatch (AIFC) may not be the agency calling, rather, a center set up by a specific fire calling for resources using Arizona's fire departments. Similarly, the Central Arizona Wildland Response Team (CAWRT) can call for individuals to cross staff department resources. The department with the equipment being "ordered" will have the incident information and will make the phone calls to meet staffing levels. This is acceptable and recognized by the Forestry Division.

Records of “back-fill” (constant staffing) for personnel away on deployment should be kept for proper billing to the State Land Department after the incident.

Any personnel or crews on state assignment should attempt to make daily contact with the Personnel and Safety or On-Duty BC to inform of their crew status, assignment updates or location changes (with available phone access)

The Arizona Interagency Fire Center is the statewide deployment center for all state resources cooperating with the State Land Department, Forestry Division. They can be reached 24 hours a day, seven days a week by phone at 1-800-309-7081.

The AIFC should be contacted by phone or radio in the following situations:

1. *En route to incident*
2. *On Scene*
3. *Released and returning to Tempe*
4. *Returned and back in service*
5. *At any time for further information, emergency contact, or for reassignment.*

As requested by the Arizona Interagency Fire Center, weekly resource status lists are to be updated by FAX to the AIFC every Thursday, starting April 1.

The Wildland Fire Coordinator will attempt to make status reports to team members during times of high fire activity. This will facilitate keeping team members aware when a possible assignment could be imminent. Further, an updated list of the deployment rotation will be maintained by the wildland coordinator and the Captain FIT's. Changes will be made by the FIT after review with either the wildland coordinator or Personnel and Safety BC. Access should be made available for team members in order to review current status on the list for any pending deployment activity.

Upon completion of a seven (7) day assignment, personnel will be allowed one day (day #8) off whether is a duty day or non-duty day. Personnel who return from a 14 day assignment will be allowed two days off (days #15 and #16) whether they are duty days or non-duty days. Travel time does not account for days off. The intent of this time is for rest and recuperation and is applicable to line and staff personnel. The rest period will prohibit any personnel from constant staffing or engaging in outside employment during the one or two days off.

Fire Behavior Factors

Operating at a wildland or urban interface fire requires an understanding of fire behavior which has similarities and differences from the structural fire environment. Fires in vegetation fuels still require the 3 sides of the fire triangle, heat, fuel, and oxygen, for combustion. Further, wildland fires are also influenced by radiation and convective heat, and in a lesser sense, conduction. But most importantly, wildland fires are very susceptible to behavior changes by the conditions of fuel, weather, and topography. Fire personnel need to be constantly aware of the characteristics of these factors when assigned to an incident.

1. Fuel – Drought, Fuel Moisture, Fuel Loading, Fuel Type, Arrangement/Continuity
2. Weather – Winds, Temperature, Relative Humidity (RH), Storm Fronts, Lightning
3. Topography – Slope (steepness), Aspect, Elevation

The sum of these factors will help determine the severity and intensity of fire behavior.

Personnel assigned to a wildland fire should consider current and predicted weather patterns, previous fire behaviors, current fire behavior, fuel types and loading, topography, and available resources in order to make safe fire-fighting decisions.

Incident Priorities

When dealing with wildland fire incidents, the priorities of the Tempe Fire Department are:

1. **Protection of life (Public and Firefighter safety)**
2. Incident Stabilization
3. Property conservation
4. Natural resource protection

Risk Management:

- We will risk our lives a lot, in a calculated manner, to save SAVABLE lives.
- We will risk our lives a little, in a calculated manner, to save SAVABLE property.
- We will not risk our lives at all, for lives, property or the environment that are already lost/cannot be saved.

Safety/PPE

Personnel operating at state/federal wildland fire incidents shall adhere to Arizona State Land Department guidelines, and all personal protective equipment required under current Fire Management agreements shall be worn. All personal protective equipment should be brought on Type 1 engine deployments.

Wildland assignment: Nomex shirt or jacket, Nomex Pants, Web Gear with Fire Shelter and (2) water bottles, min. 8" all leather boots (no steel toe), helmet with shroud, goggles, gloves, and hearing protection (when needed). All cotton undergarments should be worn under PPE. It is recommended that long pants and long sleeve cotton shirts be worn underneath the Nomex protective ensemble (especially with department issued brush pants), to double the protection from radiant heat. If a helmet shroud is not available, personnel should wear a structure fire hood to protect the head and face.

Structure assignment: Current Tempe Fire Department PPE and SCBA.

Medical assignment: Current Tempe Fire Department Policy.

Full protective clothing shall be worn when operating in hazardous or potentially hazardous environments. This includes the Fire Shelter, which shall be carried and accessible at all time while involved in suppression operations or on the fire line

Crews should follow and implement guidelines from the Fireline Handbook or Incident Response Pocket Guide including:

- LCES: Lookouts, Communications, Escape Routes, Safety Zones
- 10 Standard Fire Orders
- 18 Watchout Situations

Prior to fireline activities, crewmembers should ensure that they have been given a thorough briefing, have established lookouts and communications, and designated escape routes to safety zones.

In the event of an injury or accident, immediate contact should be made with the department following Standard Operating Procedures.

Current state/federal guidelines include a work-to-rest ratio of 2:1. If a crew works a 12-hour operational period, a 6-hour rest period is required to maintain safety. *Any operation outside of this 2:1 guideline requires written approval by the Incident Commander.*

Any Captain/Engine Boss who feels an assignment is beyond the capability of the crew should inform the immediate supervisor in order to provide for the optimum safety of the crew.

Equipment

A wildland fire equipment cache is prepared in the warehouse to supplement the standard structural fire equipment carried on Tempe Fire Department apparatus. Personnel should prepare apparatus for deployment, and assure all equipment on state deployment inventory list is loaded. Apparatus should be prepared and outfitted for assignment to a structural or wildland fire assignment, BLS or ALS EMS assignment, or other typical first responder incident.

Any member responding in a single role capacity for an overhead position or medical position should inspect and prepare all assigned equipment prior to departure.

Special equipment needs from on duty BC may include the following:

1. Credit Card for fuel, food and lodging
2. Cell phone/Satellite Phone
3. Other specialized equipment

The wildland fire cache is located at the rear of the warehouse. This specialized equipment includes:

1" and 1 ½" lightweight wildland fire hose	MREs (Meals Ready to Eat)
Wildland fire nozzles	Fuses (for burnout operations or crew safety)
Web gear sets with fire shelters	Brush jackets
Fire line hand tools	Glow sticks
Hose clamps, couplings and adapters, wyes	Class A Foam
DOT Reflective Triangles	Chain Saw and kit
Collapsible backpack pumps	

Advanced Life Support (ALS) and Basic Life Support (BLS) kits will be available for team members who respond as fireline-qualified medical personnel. These kits are to carry medical supplies as well as the personal fire shelter. Kits will be reimbursed per State contract, and must be accounted for and checked-in at the incident.

Communications

Initial resources will most commonly operate on the state mutual aid channel: 154.280. This is channel 4, "A" deck on current TFD mobile and portable radios. Once assigned to an incident, programmable radios and different frequencies may be assigned. The Tempe Fire Department has Bendix King portable, programmable radios for state fire deployments. The BK radio has over 200 channels, and can scan between any of the 14 channel frequencies in the group. This radio is field programmable by keypad, cloning, or computer programming at base camp.

Current King radio programming is as follows:

- Group 1: Phoenix Fire white channels 1-12 (13 and 14 are weather)
- Group 2: Phoenix Fire blue channels 13-24 (13 and 14 are weather)
- Group 3: Arizona State Land Department frequencies**
- Group 4: Tonto National Forest frequencies
- Group 5: Prescott area fire departments and National Forest
- Group 6 -12: Various local agencies (USFS, BLM, State Fire Departments)
- Group 13 and 14 should be used for incident programming.

Group 3 Channels:

- Channel 1: Phoenix Area (Repeated)
- Channel 2: Tucson Area (Repeated)
- Channel 3: Flagstaff Area (Repeated)
- Channel 4: Various state coverage's (Repeated)
- Channel 5: State mutual aid (not repeated)
- Channel 6: Tactical/Car-to-Car (not repeated)
- Channel 7: Tactical/Air-to-Ground contact (not repeated)
- Channel 8: Tactical/Car-to-Car (Not repeated)

Due to federal radio regulations, radios will most likely need to be programmed to operate in the Narrow Band mode.

All agencies operating on wildland fire assignments will employ the use of clear text for all communications.

The Arizona Interagency Fire Center radio call sign is "State Fire". State Fire channel 1 (Group #3) should be used when leaving to advise on response status. Depending on location, appropriate State Fire channels should be used for normal communication with dispatch and to inform of on scene status.

Personnel may also be issued 2-4 TFD Saber radios to facilitate inter-crew communications for use when assigned to non-fireline assignments.

Crew Operations (Single Resource, Strike Team/Task Force)

Tempe Fire Department apparatus may be dispatched individually or as a part of a Strike Team or Task Force. A *Strike Team* will consist of (5) like engines, most likely assembled with engines from other valley agencies. A *Task Force* will consist of a mixed group of engines or other resources. Each Strike Team or Task Force will have a NIIMS-qualified Strike Team/Task Force Leader, common communications, and Strike Team/Task Force ID/call sign.

Tempe Fire Department personnel and equipment may be assigned to the following types of duties:

1. Structure protection
2. Staffing state fire equipment
3. Stationary pumping operations
4. Local fire department station coverage and responses (EMS and structure fire protection)
5. Helicopter water supply operations or other water supply operations
6. Mop up of accessible areas
7. Area reconnaissance and area pre-planning
8. Fire line and/or base camp Emergency Medical Services.

Apparatus shall not be taken off *improved* roads unless designed to do so.
Maintain Resource and Strike Team/Task Force integrity – No freelancing.

Structure Protection

The Tempe Fire Department Type 1 structure engines can be expected to operate in the urban interface for structure protection of homes, businesses and other improvements. To operate safely, crews should be aware of the following safety concerns:

1. Limited ingress and egress
2. Limited water supplies
3. Power lines
4. LPG tanks
5. Septic tanks
6. Animals
7. Bridge load limits
8. Extreme Fire Behavior

Due to the potential of numerous structures and a lack of resources, crews involved in structure protection may have to triage structures for defense. This involves an evaluation process to determine which structures might be capable of being saved. The evaluation should fall into three categories:

1. Defendable without any effort (take no action)
2. Not defendable with the time and resources available (take no action)
3. Defendable with the time and resources available (take action)

Structures with the following features could be deemed unsafe to defend:

- Wood shingle roofs
- Wood-sided finish
- Unprotected eaves and attic spaces
- Hazardous materials present
- Located in saddles or “chimneys”
- Excessive vegetation next to structure with no defensible space

Actions taken by crews performing structure protection duties should include the following:

- Ensure apparatus windows, doors and compartments are closed
- Post a Lookout, confirm communications, identify escape routes and safety zones
- Establish a plan and contingency plans
- Back apparatus into position and locate a water supply (garden hose, pool, water tank)
- Close windows and doors, etc. of structure
- Remove light-weight curtains, close heavy drapes and shutters
- Move combustibles away from the structure
- Shut off the gas or LPG
- Ladder the roof with homeowner’s ladder
- Cover attic vents
- Turn on porch or other exterior light
- Deploy 1 ½” or 1 ¾” hose lines around the structure (use shortest lengths possible)
- Remove vegetation necessary from around structure(s) to improve defense
- Pre-treat with 1% Class A foam 5-10 minutes before arrival of fire front
- Have a 1 ½” or 1 ¾” protection hose line for the truck
- Remain mobile; be prepared to redeploy quickly
- Watch for embers entering apparatus air filter element

Maintain LCES

When defending a structure, abandon the operation if more than ¼ of the roof is involved.

Do not attempt interior fire operations without standard structural fire resources.

Medical Unit Operations

Personnel who are assigned to work as medical personnel will work under the Medical Unit Leader. Personnel are required to have passed the annual refresher training and Fitness test.

Assignments will be for fireline areas to support fire personnel or for base camp staffing needs. TFD personnel will be responsible for checking BLS or ALS equipment and must be able to work within the ICS system independently. Typically an EMTB will be assigned to a paramedic and vice versa. After check-in to an incident, personnel must access and review the incidents medical plan and make sure they are briefed on all aspects of the incidents activities and assignment areas.

EMS equipment is carried in line packs with BLS or BLS and ALS equipment. The line packs also hold the Fire Shelter which is required of fire line personnel. A kit should be taken to every incident and checked-in for proper reimbursement.

Paperwork, Billing, and Reimbursement

The Tempe Fire Department and Arizona State Land Department Cooperative Agreement allows for the compensation of fire fighting resources, personnel, and required "back-fill" staffing. All crews and personnel will be responsible for submitting the following forms:

1. *Crew Time Reports* (personnel)
2. *Emergency Equipment Shift Ticket* (apparatus)

Deployed crews need to have CTR and Shift Ticket records for each day of travel and days assigned to the incident. Equipment rates for apparatus are billed at an *hourly* rate, starting at the time of dispatch, and should be recorded daily on the Emergency Equipment Shift Ticket. Incident times should be set by the Strike Team/Task Force Leader or immediate supervisor. Signatures are needed on all forms by the immediate supervisor or Incident Commander on the incident. On large incidents, duplicate copies should be turned in to the Time Unit of the Finance Section. Upon being released from an assignment, crews should receive a packet from the Finance Section, with total incident hours to return for billing. Upon return from a deployment, up to 2 hours may be added to the equipment and personnel time to refit, restock, and return the truck into service. Upon completion, the AIFC should be contacted by phone to notify of the department and equipment status.

The department shall record all crew and equipment times, as well as costs to constant staff for any position left open by personnel on assignment. Broken or damaged equipment may also be billed if crews received an "S" (supply) number from State Land or responsible agency. Retain all hotel, food, fuel or other supply receipts for reimbursement. Lack of any receipts or proper billing paperwork may result in loss of payment to the department or crewmembers.

Billing Invoices will be completed either by the Wildland Fire Coordinator, Personnel Battalion Chief, or administrative assistant. Billing invoices are required to be submitted to the Arizona State Land Department within 30 days of return from the incident in order to receive prompt payment.

Records

All billing records will be maintained by the department administration.

Training and experience records are to be maintained by the individual personnel, as well as through electronic recording on Firehouse software and personnel files.

The Wildland Fire Coordinator will assist in the maintenance of all personnel records, training needs, and deployment lists.

Training

The National Wildfire Coordinating Group has established guidelines for personnel operating on wildland fires. Personnel who wish to advance in position will need to follow the course requirements, as well as work through the appropriate NWCG Position Task book. The Position Task book is an experienced based system where personnel are signed off for tasks and skills required of the position, while on assignments. Upon completion of the required courses, and following completion of a Position Task book, personnel will be considered for advancement. Advancement must be to the next highest skill position. Task books will be reviewed by the Training and Professional Development Battalion Chief and/or the Wildland Fire Coordinator for completion and certification. The Fire Management Division of the Arizona State Land Department may wish to confirm personnel or refer for further training.

The common ICS positions found within the TFD Wildland Fire Team and the minimum necessary training and step progression is as follows:

Fire Fighter Type 2 (basic) – minimum team requirement

Required (all taught in one course):

S-130 Wildland Firefighter
S-190 Introduction to Wildland Fire Behavior
I-100 Introduction to the Incident Command System
L-180 Human Factors (after 11/2004)

Also suggested:

S-215 Fire Operations in the Urban Interface

Fire Fighter Type 1 (advanced)

Required:

Qualified as FFT2
S-131 Advance Fire Fighter / Squad Boss

Also Suggested:

S-211 Pumps and Water Use
S-212 Wildland Fire Power Saws
L-280 Followership to Leadership
S-290 Intermediate Wildland Fire Behavior

Engine Boss (Single Resource Boss)

Required:

Qualified as FFT1
S-230 Crew Boss
S-231 Engine Boss
S-215 Fire Operations in the Urban Interface
S-200 Initial Attack Incident Commander

S-290 Intermediate Wildland Fire Behavior
I-200 Basic Incident Command System

Also Suggested:

S-234 Firing Operations
S-260 Interagency Incident Business Management
S-270 Basic Air Operations

Strike Team/Task Force Leader

Required:

Qualified as ENGB/CRWB
S-330 Strike team/task Force Leader
S-300 Extended Attack Incident Commander
S-336 Fire Suppression Tactics
S-390 Introduction to Fire Behavior Calculations
I-300 Intermediate Incident Command System

Completion of a 4-hour annual refresher course is required by the Arizona State Land Department. The refresher training can be held in-house or from other outside agencies recognized by the Arizona State Land Department. At that time, team members will be required to pass the annual fire shelter deployment test in 25 second or less, as well as the fitness test.

The "Pack Test" is the nationally recognized fitness test for wildland fire personnel who engage in wildland fire suppression. This test signifies the "Arduous" level for fitness. The test process is a 3 mile, level ground walk (no running) completed in 45 minutes or less, while carrying a 45 pound weight vest. Fire personnel must have completed and passed their most recent Fire Department physical at the Tier 1 level prior to taking the Pack Test and becoming available for team deployment.

At the completion of the annual refresher training and having passed the fitness test, the Wildland Fire Coordinator will print and distribute the NIIMS qualifications cards to team members. Qualifications Cards should be carried by all members when on an assignment, and will be checked by immediate supervisors and by the check-in unit at assignments. Copies of the card should be submitted to the Personnel Battalion Chief for TFD records.