

**PHOENIX REGIONAL
STANDARD OPERATING PROCEDURES**

BRUSH/WILDLAND FIRE AIR SUPPORT

M.P. 202.15A

12/12-R

Page 1 of 3

Purpose

To ensure the safe and effective use of aerial firefighting resources on a wildland / brush fire within the areas protected by Phoenix Regional Departments.

Overview

Aerial firefighting resources are an effective tool when dealing with a wildland / brush fire. Their functions are imperative to fire suppression activities. Some of these functions include delivering water or fire retardant to inaccessible areas; assist in completing fire line gaps and cooling the head or flanks of a fast spreading fire. However, it must be noted that the use of aircraft dramatically increases the hazard level of the fire ground and adds a greater responsibility on the incident commander. The benefits must be weighed against the risks. The following guidelines should be in place when using aerial resources.

Definitions

Air Attack: Air Attack is a fixed wing aircraft with a pilot and air attack group supervisor on board. The air attack group supervisor responsibility is to coordinate with command, aircraft and ground forces ensuring aircraft safety, correct drop locations as requested by ground forces and to act as aerial recon for all ground forces.

Rotary wing: Rotary wing aircraft is a helicopter used on an incident for recon, crew shuttle and water drops.

Fixed wing: Fixed wing aircraft include any airplane used on an incident for air resource coordination, a.k.a. air attack, or retardant drops.

Types of fixed wing aircraft

S.E.A.T: Single engine air tanker holding 600 – 800 gallons of retardant.

Large Air Tanker: holds up to 3000 gals of retardant.

Very Large Air Tanker: A very large air tanker is a DC10 holding 10,000 gallons of retardant.

Lead plane: A lead plane is aircraft used as a guide for heavy and large air tankers to mark flight routes and drop sites.

Landing zone: A landing zone is a large area, clear of obstructions, where rotary wing aircraft can land.

Dip Site: A dip site is a large area clear of obstructions, with a 300' approach and departure path clear of structures and personnel with a water supply from a lake, pond or buoy wall that can be supplied by a water tender or engine utilizing a hydrant.

(Note: on a wildland fire ground, large aircraft are referred to as tankers and water hauling equipment is a tender.)

Requesting Aircraft

When it is determined that aerial resources are needed, contact Alarm and request the type of aircraft desired. Alarm can dispatch local resources such as Phoenix PD, Mesa PD and DPS Ranger 41. Other rotary wing aircraft and fixed wing aircraft must come through an interagency order from Arizona State Forestry which will include State and Federal resources. When requesting these resources, ask for air attack in addition to the suppression aircraft. When State or Federal resources arrive on scene, local air resources must leave the incident per State and Federal guidelines.

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12/12-R

Page 2 of 3

Communications

All aircraft shall be on a secure radio channel with the position of air operations being the ground contact located at the incident command post. All request for water / retardant drops must go through command to Air Operations who will assign an aircraft for the drop. Air Operations will provide pilot the location of the drop on the fire and the radio channel of the ground contact in order to ensure proper drop location. After the drop, the aircraft will contact Air Operations on the Air Operations channel. The dip site manager shall monitor the Air Operations channel.

Aircraft use and restrictions

Considering the hazards associated with low flying aircraft, the following shall be adhered to.

- Aircraft used for water / retardant drops shall not be used at night.
- Rotary wing aircraft carrying an external load, i.e. bambi buckets, shall not fly over occupied structures. All structures should be considered occupied.
- All State and Federal resources must be on the ground 30 minutes prior to sunset. The Incident commander must consider the tactical challenges this could cause when constructing the incident action plan.

Dip Site / L.Z/Helisports location

Dip sites / Landing zones/Helisports should be set up within proximity to the incident; however, not close enough to interfere with ground operations. The following should be considered:

- Approach and departure routes must be clear 300' in all directions
- Terrain should be flat and paved if possible
- Dust control procedures must be in place
- Water supply location: is there a hydrant close by or is a water tender going to be utilized for a shuttle operation or to supply a Buoy Wall.
- Travel time to and from the fire line along with travel routes
- Wind direction and a plan for potential wind shifts effecting approach and departure.

PROGRESS REPORTING TO COMMAND

Progress reports on the effectiveness of water drops on the fire from Sectors to Command are essential. Sectors will advise Command of the need for water drops and provide specific locations. Unless otherwise directed by Command, Sectors and crews do not communicate directly with the helicopter pilot.

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Page 3 of 3

Safety

Working with Air Tankers

- Have a plan: determine tactics based on strategy- direct or indirect based on fire size up.
- Order appropriate aircraft for mission; aircraft should support ground resource tactics.
- Establish effective communication with Air Operations or Air Attack.
- Discuss strategy, tactics, wind condition and hazards with Air Operations or Air Attack.
- Establish an anchor point and work from it or towards it with aircraft.
- Order aircraft early; aircraft are most effective during initial attack.
- Let ground resources know when there is aircraft inbound.
- Ensure approach, departure and line is clear of personnel and equipment.
- Inform Air Operations, Air Attack or pilot when the drop area is clear.
- Let ground resources know when drops are completed on a division or segment of line.
- Get feedback from on-scene ground resources regarding drop effectiveness.
- Relay feedback to aerial resource.

Aerial water and retardant drop

Clear personnel out of target area prior to drops. If you can't escape:

- Hold your hand tool away from your body
- Lie face down with head toward oncoming aircraft and hard hat in place. Grasp something firm to prevent being carried or rolled about by the drop liquid.
- Do not run unless escape is assured.
- Get clear of dead snags, tops and limbs in drop area.
- Working in an area covered by wet retardant should be done with caution due to slippery surfaces.

Approach and departure

- Stay clear of landing area during approach and departure.
- Always approach/depart from the down-slope side as directed by the pilot.
- Approach/depart helicopter in a crouched position.
- Do not run.
- Keep in pilots view at all times.
- Do not reach up or chase after loose objects.
- Never approach the tail section of the helicopter.
- **No smoking** within 50' of the aircraft.