

Section 7027
(October 2002)

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ROTARY WING**7027****(October 2002)****GENERAL****7027.1****(October 2002)**Aircraft

CDF maintains and operates a fleet of 9 UH-1H SuperHuey helicopters. These aircraft are assigned to helitack bases strategically located throughout California. Two additional aircraft are used as maintenance spares.

CONFIGURATION**7027.2****(October 2002)**

Helicopter water dropping is accomplished by either a 360 gallon fixed tank or 324 gallon water bucket. All CDF helicopters have foam injection capabilities. CDF helicopters come with a complement of hand tools, chain saw(s); saw fuel and basic medical equipment. Also with the exception of the maintenance spares all helicopters are equipped with computer mapping equipment. For additional needs each helicopter is assigned a helitender. Along with aircraft fuel each helitender carries a wide variety of helicopter and incident support equipment

CREW (8312.1.3)**7027.2.1****(October 2002)**

Qualified and current personnel will staff CDF helicopters. Under normal operations staffing of CDF helicopters will consist of:

- One Pilot
- Two Helitack Captains
- Six Helitack Firefighter I's

OPERATIONAL LIMITATIONS**7027.2.2****(October 2002)**

Except as noted in (8363.3.4.1) CDF helicopters are to be operated during daylight hours and under visual flight rules (8363.3.4.2).

Winds can affect flight safety. The flight crew will constantly monitor wind speed and turbulence. When conditions warrant, flight operations may have to be suspended (8362.3.1.1).

Transportation of hazardous materials by CDF aircraft will be done in accordance with DOT Regulation HMR 175.310 and Aviation Transport of Hazardous Materials by the Department of the Interior and the USFS (8361.3.5). Portions of these regulations state: Fueled chainsaws may be flown on helicopters if they do not leak and can be carried upright. Gas and oil containers must be DOT approved, labeled and cannot leak. Fusses must have their original striker

protection in place. They must be in their original container or otherwise securely packaged.

COMMUNICATIONS
(October 2002)

7027.2.3

In addition to standard aviation communications CDF helicopters have two VHF FM radios. These radios are capable of accessing a full range of Law Enforcement, Medical, Tactical and Support frequencies. However, only two frequencies can be monitored simultaneously. All CDF helicopters can be contacted on CDF Air-To-Ground 151.220. (8380)

ROTARY WING UTILIZATION
(October 2002)

7027.3

LINE CONSTRUCTION
(October 2002)

7027.3.1

Helitack crews working directly on the fire line to back up air tanker retardant or helicopter water drops have obtained the best results. Quick aggressive ground action following airdrops increases their effectiveness.

BACKFIRING
(October 2002)

7027.3.2

Natural barriers, roads and dozer lines can be utilized. In some cases backfiring can be used to strengthen retardant lines and water drops if no other barrier exists.

HOTSPOTTING
(October 2002)

7027.3.3

Aggressive holding action of trouble spots on the fire line can reduce spread until ground forces arrive. This method is often accompanied by airdrops from air tankers or helicopters.

SPOT FIRES
(October 2002)

7027.3.4

The mobility of the helitack crew makes it a very valuable tool for the control of spot fires.

WATER DROPS
(October 2002)

7027.3.5

CDF helicopters have the capability of dropping water with a high degree of accuracy. They may be capable of working areas of the fire line inaccessible to air tankers. Water drops can be used for: spot fires, snags, hot spots and direct support of helitack crew or other personnel on the ground.

PERSONNEL TRANSPORTATION

7027.3.6

(October 2002)

The helicopter is a ready means of transporting personnel and their equipment to areas of the fire line with limited access. To ensure everyone's safety, trained helitack personnel are required for this operation.

SUPPORT

7027.3.7

(October 2002)

Helicopters can deliver equipment and supplies to the fire line either internally or externally. Trained helitack personnel will perform cargo loading of helicopters.

Additional approved flight uses for CDF helicopters can be found at [\(8314.2\)](#)

HELISPOT

7027.4

(October 2002)

Helispot selection is critical for safe operations. The pilot will approve Helispots in concurrence with helitack personnel. Helispot conditions which will be avoided:

- Over-flight of personnel on approach and departure [\(8344.4.1\)](#)
- Excessive dust [\(8344.4.3\)](#)
- Landing surface greater than 6 degrees of slope.

Helispot selection must take into account prevailing winds along with obstacles such as trees and wires on approach and departure paths. Helispot dimensions will be dictated by the size of helicopter using it. Qualified personnel will staff Helispots intended for repeated use. [\(8344.4\)](#)

AERIAL IGNITION

7027.5

(October 2002)

CDF helicopters have two methods of aerial ignition.

Helitorch [\(8344.5.3\)](#)

Operational planning is extensive and in depth. Considerations, which must be taken into account and in place, are:

- Proper number of trained and qualified personnel
- Proper serviceable equipment
- Adequate supply of gasoline and gelling agent
- Helitorch base fire protection and crash rescue
- Communications plan

- Clear and defined chain of command
- Helitorch base go-no-go checklist

Helitorch operations are most effective in heavier fuels such as brush. Gelled gasoline will hang in the canopy.

PSD (Plastic Spherical Dispenser) (8344.5.3.3)

The PSD used by CDF is an effective tool for prescribed burning and as a firing tool on large fires. Its advantages are minimum logistical support, mobility, rapid mobilization and relatively low cost when compared to the helitorch. It must be remembered however, that it does require a fine fuel bed to effect ignition.

Aerial ignition was designed to support large incident fires and the Vegetation Management Program (VMP)

VMP

7027.6

(October 2002)

Close coordination between the Vegetation Management Coordinator and helitack base personnel is essential. Contact should be made well in advance of the burn to discuss logistics and operational procedures. Minimum notification to the helitack base of 48 hours prior to the burn during IRA and 72 hours during NIRA shall be adhered to.

(8344.5.7.3)

CDF HELICOPTER AIR RESCUE

7027.7

(October 2002)

CDF helitack crews are trained, qualified and authorized to perform life saving air rescue missions. To extricate victims helitack crews have a variety of techniques at their disposal. Methods include but are not limited to: transportation of ground based rescue personnel and equipment, flat pitch landing, hover stepping, and short haul (8344.5.6 and CDF Air Rescue Short Haul manual). Once victims have been extricated and no appropriate means of transportation is available CDF helicopters may transport victims.

CALL WHEN NEEDED HELICOPTERS

7027.8

(October 2002)

CWN (8334.4)

CDF has the ability to augment helicopter resources during periods of operational need. Private helicopter operators can be hired on a Call When Needed (CWN) basis. Helicopters must meet safety, insurance and pre-use inspection criteria. Pilots will also be pre-approved and possess a current qualifications card prior to use. Private hire helicopters should have a qualified CWN helicopter manager assigned. The Aviation Management Unit (AMU) maintains and updates a list of approved CWN aircraft. This list is located on the CDF Intranet under AMU.

CNG (8338.3.1)

There will be periods of operational need when no other fire agency or private sector helicopters are immediately available. The *California National Guard* (CNG) has helicopter resources available for fire fighting use. The use of CNG helicopters is governed by the California Interagency Military Helicopter Fire Fighting Program Operating Plan.

HELICOPTER SAFETY

7027.9

(October 2002)

All personnel will comply with any direction or instruction given by the Pilot, Crew Person or other person assigned to the helicopter or its operation. Unless directed to do so vehicles will stay 100' away from operating helicopters. Personnel will remain clear of approach and departure paths. Hearing and eye protection will be worn around operating helicopters at all times. Water drops can be hazardous. Foreign objects released with the water and branches or debris knocked out of trees can cause injury. Low altitude and high-speed drops should be avoided (8344.3.1).

HELICOPTER SECURITY

7027.10

(October 2002)

CDF has developed a 4-tier plan for aircraft security. This plan ensures consistency in security statewide with the ability to enhance the level of security as situations dictate (8361.4).

(see next section)

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(see Forms or Forms Samples)