Wilson County Emergency Management Agency
110 Oak Street Lebanon, Tennessee 37087

SOG Name: Helicopter Operations

SOG Number: 403.08

Effective Date: February 2, 2015

Approved: Joey Cooper, Director

Reviewed:

Scope
When a decision by Command or a request has been initiated for the intervention of an air operation, command shall establish an air-operations sector (LZ).

Selecting a Landing Zone (LZ)
An area should be selected large enough to land a helicopter. The landing surface should be flat and firm, free of debris that would blow up into the rotor system. The landing area should be free of people, vehicles, and obstructions such as trees, poles, and wires. Keep in mind that wires cannot be seen from the air. The landing area must be free of stumps, brush, posts, and large rocks.

Touchdown Area:
Small helicopter - the area should be a square with 60' sides and 100' x 100' for night operations.
Medium helicopters - the area with 75' sides and 125' x 125' for night operations.
Large helicopters - the area should have 120' sides and 200' x 200' for night operations.
If you are unsure of the correct size always go with the large helicopter.
Wind Direction and Touchdown Area: Consider the wind direction. Helicopters land and take off into the wind. The approach and departure path must be free of obstructions such as wires, poles, antennas, trees, etc. If there are obstructions, this information must be relayed to the pilot as soon as possible.

Personnel Safety and Night Landing
All spectators and non-essential emergency personnel shall keep at least 200 feet from the touchdown area. All emergency equipment shall be kept at least 100' from the LZ. Hats shall be removed. (Loose equipment may be blown into the rotor system.) If the LZ is extremely dusty, an engine company may wet down the LZ. When the helicopter has landed, do not allow anyone to approach the aircraft. During the helicopters final approach, radio traffic should be keep to a minimum should an emergency occur that requires immediate communication with the helicopter.

For night landings, assure that spotlights, floodlights, and hand-lights used to define the LZ are not pointed toward the helicopter. Turn off all non-essential lights. White lights such as spotlights, flash bulbs, and high beam headlights ruin the pilot's night vision and temporarily blind him. Red lights however, are very helpful in finding accident location and do not effect the pilot's night vision.

Ground Guide
When the helicopter is spotted, one person shall be delegated to guide the helicopter in to a safe landing. As the helicopter turns into the wind and begins a descent, the ground guide should begin directing the approach using approved radio communications. The ground guide should be far enough from the touchdown area that they can maintain contact with the pilot.

Helicopter Safety

When working around helicopters, never approach helicopters from the rear. Always approach and depart the aircraft from the front so you can see the pilot, and he can see you. When approaching helicopters keep low to avoid the main rotor. Winds can cause the rotor to flex downward. If the helicopter is located on a slope, approach and depart from the down-slope side only. When the helicopter is loaded and ready for take off, keep the departure path free of vehicles and spectators. If an emergency should occur, the helicopter would need this area to execute a landing. Once the helicopter has landed, do not approach the helicopter. The crew will approach you when it is safe to do so. No one is permitted to go near or touch the helicopter. Security is necessary for safety.
Eye protection is recommended whenever working in or around a helicopter.

Hazardous Materials

Helicopter crews must be told of hazardous materials on the scene to avoid contamination of the crew. Of special concern are toxic, poisonous, flammable, explosive, irritating, or radioactive in nature. Helicopter crews do not carry protective suits or breathing apparatus to protect them from hazardous materials. Always inform the flight crew of hazardous chemicals or gases. Never assume they have been informed. If the aircraft were to fly through the hazardous gases, the crew could be poisoned and/or the engines could develop mechanical problems.

Poisonous or irritating gases may cling to a victim's clothing and go unnoticed until the patient has been loaded and the doors of the helicopter are closed; the pilot and crew is then compromised. Helicopter landing zones must be selected to avoid all possibilities of compromising the safety of the helicopter and its crew.

When explosives, poisonous gases/vapors, or chemicals in danger of exploding and burning are on the site, the landing zone must be prepared up-wind, and at least one mile from the hazardous materials accident site and never in low lying areas. The toxic gases or vapors may be heavier than air and gather in these low-lying areas.

Communications

Communications with aircraft may be possible depending upon the equipment available on the aircraft. Most helicopters will have the capability to communicate with ground crews. If prolonged operations are required, a frequency shall be decided based upon the capability of the helicopter.

Visibility

Personnel involved in landing of helicopters should be wearing a high visibility vest or jacket so the helicopter crew can more easily identify anyone involved in the landing process.