

**ESCAMBIA COUNTY FIRE-RESCUE***Standard Operating Guidelines***4100.047****Helipad Operations – Station 19**

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Revised:

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*Patrick T Grace*, Fire Chief**PURPOSE:**

Escambia County Fire Rescue (ECFR) takes precautions to prevent emergencies. However, when dangerous situations occur, they require immediate actions. Emergency responses involve rapid, correct and decisive decisions. Although a rare occurrence, Helicopter Emergencies require special response considerations and tactics. ECFR employees should be informed of the company's planned response to helicopter emergency situations, and they are expected to adhere to these guidelines for the duration of the incident.

In order to ensure the best possibilities of preserving life and property prior to, during, and after an on-site helicopter crash, preplanning, preparation and training are critical. Routine review of an Emergency Action Plan (EAP) and training can be the key to the success of such operations and should take place on a quarterly basis. Multi-agency drills should be conducted bi-annually.

This SOG is prepared in consideration and cooperation with county, state and federal emergency management authorities. Additional assistance and training have been received from local air ambulance response agencies directly involved with utilizing the station 19 helipad. The EAP contains information specific to an on-site helicopter crash. Detailed safety and emergency response for medical helicopters can be located in ECFR SOG 4100.045, Helicopter Safety.

**OBJECTIVE:**

Any hard landing or crash incident involving a helicopter on or around the helipad would result in a multi-agency response. In a case which the aircraft lands without injuries or damage (typically a controlled landing due to mechanical issues making further flight operations unsafe), an aircraft recovery team from the sponsoring agency would need to access the aircraft in order to necessitate repairs or removal. In situations resulting in injury/loss of life and or property, law enforcement, fire and EMS assets are initially dispatched for the rescue phase followed by notification and response from the National Transportation and Safety Board (NTSB) and Federal Aviation Administration (FAA) during the recovery phase.

In accordance with ECFR SOG 3105.005, Incident Management, in a situation involving injury/loss of life and or property, a Unified Command will be established utilizing the Incident Command System (ICS) at the incident scene. ECFR personnel occupying Station 19, during the time of the incident, will be expected to know the EAP and follow this SOG.

**SCOPE:**

All Personnel assigned to and/or operating at Station 19 – Perdido Key.



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### **Situation & Assumptions**

Due to any number of errors (human and/or mechanical) a helicopter pilot can lose control resulting in an uncontrolled landing (or crash) or emergency landing (controlled but unscheduled) on or near the helipad.

The helipad is an approved pinnacle (FAA Site # 03440.18\*H), roof top landing located at a coordinate of N30.17.30 W087.28.10 at an elevation of 35.0 feet. Maximum Gross Weight: 8,000 pounds. Length: 50ft, Width: 50ft. Wind indicator is present and illuminated along with green LED intensity parameter lights scheduled from dusk until dawn. The pad surface type is cement and covered with non-skid material, compliant with NFPA 418.

Assumptions: Aircraft is within weight tolerances of the helipad. NOTAMS-Notice to Airmen are maintained, the helipad is closed during extended maintenance or when elevated cranes are present.

### **Concept of Operations**

A rotor wing aircraft pilot prefers to land with the nose of the aircraft facing the wind. Common practice is to avoid flying directly over the adjacent residential housing west of the helipad. Approved approach and departure paths for normal operation are in an area from 360 degrees to 130 degrees, using the helipad as a compass rose. During an approach, high and low reconns of the pad may be performed in order to detect any possible hazards to include Foreign Object Debris (FOD) on or around the helipad. Pilots will look for an emergency landing area in case mechanical issues arise which prevents safe landing at the helipad. If sudden mechanical issues arise forcing an immediate landing; the pilot may only have seconds to make the decision as to where to point the aircraft.

### **Mitigation**

There are a few risks which can affect an aircraft on approach to ECFR Station 19 - Helipad and are controllable by ECFR Station 19 personnel. The following procedures have been defined.

## **PROCEDURES**

### **Daily Helipad Inspections – FOD (Foreign Object Debris)**

NTSB reports that over 50% of helicopter incidents are FOD related. Ensuring that the helipad is clear of all FOD is critical in insuring the safety of the pilots, crews and patients utilizing the helipad. A simple cleaning rag left on the helipad could be pulled through the engine turbine causing a catastrophic event and lead to loss of life. Daily inspections and documentation in Firehouse Web of the helipad for FOD are mandatory. This will be performed by the Company Officer on duty at the beginning of each shift. Additional safety procedures are in place and posted to assure that anyone requiring access to the roof helipad will first inform the Company Officer on duty prior to accessing.



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During daily inspections, if any roof top equipment or building construction appears to be loose or out of place it shall be reported immediately to Facilities Maintenance. Consideration of placing the helipad out of service will be based on the severity of findings and communicated to the dispatch center as out of service until further notice.

### Fire Suppression

The helipad is equipped with two, NFPA-10 compliant, Amerex Model 630, 33 gallons each alcohol resistant Angus "ALCOSEAL" FFFP foam charged, wheeled extinguishers, Each contain a 50 foot section of hose line. There is one extinguisher located at both the south and north ingress and egress points. These extinguishers should be inspected daily to assure their readiness.

### Lighting

Helipad lighting must be maintained in an operational condition at all times. Regular inspections of the helipad lights, to include the windsock and red indicator light, must be performed and immediately reported to Facilities Maintenance when discovered out of service. NOTAMS-Notice to Airmen are maintained, when helipad lights are out of service and again when back in service by calling the helicopter ambulance services. This information should be documented in the daily log and passed down to the next Company Officer on duty.

### Premature Landings

A premature landing is often caused by a warning system within the cockpit advising the pilot of aircraft failure. In this case, the pilot may elect to land the helicopter short of the helipad by choosing an alternate location. A primary alternate location has been identified as the concrete driveway on the east side of the fire station.

### Best Practices

Marshalling Lines (yellow in color) have been established at both access points to the helipad. These lines indicate the location near the pad that individuals should not pass without permission from the pilot and/or flight crew.

Do not approach a running helicopter unless instructed to do so by the pilot and/or crew. The rotor blades must come to a complete stop when the aircraft is powering down before walking under them.

Do not be involved with hot patient loads unless you have received proper training.

Proper eye and ear protection must be donned as provided and located on the wall near the south door entrance to the helipad. Secure all loose items on you and the patient before approaching the running helicopter. Keep head, arms and IV poles down maintaining a low profile.



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Personnel are prohibited to be on the roof or outside of the doors leading to the helipad during helicopter approaches and departures.

Unauthorized personnel are not allowed anywhere on the third level when the helicopter is in operation. Authorized personnel should avoid standing above the third level during helicopter approaches and departures.

Use extreme caution when the roof top/helipad is wet as it will be slippery.

Warning: The south glass door leading out to the helipad from the elevator lobby should never be opened when the helicopter is approaching, departing or positioned on the roof at full power. If the door is even slightly open, it can be violently forced open by the rotor wash and break potentially causing serious injury or death.

Both north and south access doors have been secured with cipher locks entering from the stairwell sides to help maintain security of the helipad. However, the doors are set to remain unlocked from the helipad side for rapid egress in cases of an emergency. The access codes are "412" for both doors.

Weather extremes such as snow, ice, heavy rain or wind may make it difficult to utilize the helipad. An alternate site has been identified and can be suggested to the pilot in these or other situations such as an elevator power failure. This alternate site is located ground level on the concrete apron adjacent to the east bays, east of the helipad. Care must be given to vehicles parked in the immediate area as well as securing the lid and gate to the waste dumpster. Consideration must be given to re-position fire apparatus parked in the bays in order to maintain in service status.

All power lines in the immediate vicinity of the landing zone have been marked with the appropriate orange aviation markers.

If for any reason the helipad is to be temporarily or permanently closed, the officer of the day shall notify the Escambia County 911 Dispatch Center at (850) 471-6300 as well as the Air Methods AirComm Dispatch Center at (866) 281-4822. A large yellow X should be placed over the helipad landing area to signal to all pilots not to land at this location.

If two helicopters are inbound at the same time, set up an alternate LZ if possible and divert the second helicopter. Always insure that both helicopters are aware of each other.

In case there is a helicopter emergency or accident, refer to and follow the Station 19 Helipad EAP and ECFR SOG 4100.045, Helicopter Safety.