

## LESSONS LEARNED FROM R-340 MEDIVAC INCIDENT Second HUD Incident, July 13, 2005

### Introduction

This document follows review and examination of a medivac incident that occurred on July 13, 2005 on the Second HUD wildfire, located in Northeast Region. The intention is to highlight specific areas in which DNR can and will make planning, operational and logistical improvements for the purpose of improving safe and effective fire aviation operations.

The principal author of the discussion section was Paul Balfour, and Dan Boyle provided a preliminary investigation report. Other contributions came from Loren Torgenson, Gary Berndt, Dave Doan, Roger Autry, Joel Rogauskus, and Joe Shramek.

### Background

On July 13, 2005, WADNR Helicopter 340 (Rotor 340) was on detail assignment in Northeast Region, with the helicopter and helitack crew based in Omak. The helicopter had been released from the Second Hud incident but was used on occasion for bucket drops for the Type 3 Organization. Control and dispatching of the helicopter was to have been through WADNR Northeast Region (NE) dispatch.

At approximately 1630 hours a fire fighter became “unresponsive” with heat exhaustion on the fireline. In an effort to transport the firefighter to a medical facility as quickly as possible, a Division Supervisor (DIVS) assigned to the incident made direct radio communication with Rotor 340 and requested a medivac mission be flown. No attempt was made to contact NE dispatch and no communication took place with Command on the incident. The pilot and crew accepted the assignment and responded to the incident. The crew included two EMTs.

Rotor 340 was directed to land at a previously used area for dropping blivets. As Rotor 340 attempted to land at the helispot, the DIVS approached the helicopter before it touched down from the right aft area carrying the fire fighter “fireman” style. The pilot and crew directed the DIVS to the front and left of the aircraft and the patient was loaded and flown to the Brewster Hospital. Omak hospital was a closer medical facility, but Brewster was listed first in the ICS 206 Incident Medical Plan.

On July 14, 2005, Dan Boyle was assigned to gather information needed by management to assess and respond to those issues. His report was completed on July 18<sup>th</sup>. On the 18<sup>th</sup>, Loren Torgenson and staff began to gather additional information, and Paul Balfour was tasked with compiling a summary “Lessons Learned” report. That report was completed on July 22<sup>nd</sup>.

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What follows is largely based on Paul's report. It is limited in scope to learning opportunities and recommendations, and does not represent the full suite of actions taken by DNR in response to this incident.

## Discussion

### 1) "Was an emergency air evacuation warranted given the circumstances?"

Comments: Based on reports of the incident, fire line personnel clearly believed the fire fighter's condition to be life threatening. Given these circumstances and the fact that it would have been at least two hours for ground transport to the nearest hospital, it was a rational decision to seek transport by air.

**Lessons learned: EMTs and fireline personnel were notified and made patient assessments by radio. Decisions based on these radio conversations were made to extract the patient by air and not by physical examination of the fire fighter. With the limited information and knowledge on scene, this was the right decision for this situation!**

### 2) Given the decision to transport by air, were procedures followed to insure the DNR helicopter was the appropriate available resource and was the mission possible and safe?

Comments: Fire line personnel made the decision to transport by air, however no communication with NE occurred to determine the availability of mission specific aircraft with medical specialist and an ETA. Other aircraft may have been available, but apparently were not considered.

When Rotor 340 was contacted and requested for a medivac mission it does not appear there were communications between fire line personnel, aircraft managers and pilot to plan the mission, i.e. who was ground contact, when and who would load the injured fire fighter, who would control and manage the landing zone, etc.

Also having a DNR rotor performing missions for an incident but **not** assigned to the incident team produced confusion both from the aircraft personnel and incident management personnel with respect to who really had control of the aircraft.

**Lessons Learned: Basic Risk Management and Risk Assessment procedures were not in place to determine the most appropriate method of extraction. Basic procedures are developed and used to maintain firefighter safety! Clear lines of resource allocation and responsibility are needed to determine the appropriate available resource. Pre-planning of medivac missions with the 5 Ws could help to make the Risk Management and Risk Assessment process more successful.**

**3) “The serious issues with how people on the ground approached the helicopter as it came into the landing zone...”**

Comments: Symptomatic of this was the DIVS carrying the firefighter, approaching Rotor 340 from the aft prior to R-340 being set down on the ground. No one on the ground appeared to be in charge of the landing operation of R-340. The helispot had been used to sling in blivets prior to this incident, but never had R-340 actually landed at the site.

**Lessons Learned:** As an incident within an incident, there was no one person who seem to have command of the situation. Everyone seemed to have their “head down” and not taking a step back to look at the big picture of the exposure, risk and mitigation to the firefighters within the incident. Our exposure of firefighters working around DNR helicopters has increased 50-60% since we have expanded our fleet. As an example to mitigate this, Northeast Region has provided the BEHO/SAF training on a limited basis to our Highlands 20 and the North Columbia handcrews.

**4) “Incident medical plan lacked some important information that could have helped in this situation.”**

Comments: Formal medical plans are not required on Type 3 incidents. However, Northeast Region has developed a template plan for use on Type 3 incidents by District, and is commended for doing so. These plans can be modified at each incident to provide the most efficient procedure to accomplish the specific medical need After reviewing the medical plan of the IAP for Second HUD, 07/11/05, it appears some additional information would have helped in this situation:

- a) Hospitals listed by priority, closest first,
- b) Latitudes and longitudes for each facility. This would allow a pilot to pre-program GPS and identify. When an incident occurs they would just punch up the name or location of the hospital, point and fly.
- c) Other boxes not checked, i.e., travel by airtime, travel by ground time, helipads (yes, no), Burn Center (yes, no).

A Medical Unit Leader or someone with medical background should be involved in completing the ICS 206 to have a comprehensive plan.

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**Lessons Learned: Medical Plans are not detailed enough for each specific Type 3 Organization. It would be beneficial to add information to the Medical Plan such as closest hospital first, Lat/Long for each hospital, travel time by air, travel time by ground, helipads and their size, radio frequencies, and location of the nearest burn centers. This information will help engage fireline personnel, helicopter managers, pilots into developing scenarios on how incidents like these should be carried out safely.**