



Montgomery County Fire and Rescue Service

Near Miss Involving Helicopter Eagle 1

Fire Station 25

February 23, 2012



On February 23rd, MCFRS had a “near-miss” event involving Eagle 1. This event underscores the hazards of helicopter med-evacs and the precautions necessary.

At the time of the incident, weather conditions were clear and cool with little wind. It was fully dark, but the amount of light from surrounding buildings and street lights provided some visibility to drivers and pedestrians.

At 1928 hours that night, units were dispatched to Georgia Ave and Connecticut Ave for a pedestrian struck. A705, PE721, PE718, and C705E responded and found a P1, Category “A” trauma. A helicopter was requested for med-evac to Baltimore Shock Trauma. Station 25 was identified as the landing zone and PE718 was designated as the landing zone unit.

Personnel from Station 25 and BC704 were in quarters at the time of the request. Leisure World security was contacted to shut down the gate from Leisure World onto southbound Connecticut Ave. An officer from 25 met with PE718 to advise of the situation, and recommended the landing zone on Connecticut Ave at the base of the apron.

The grassy hill behind the station was considered, but not chosen based on the historical practice of using the paved area in front of the station, and concerns about moving the patient up the hill.

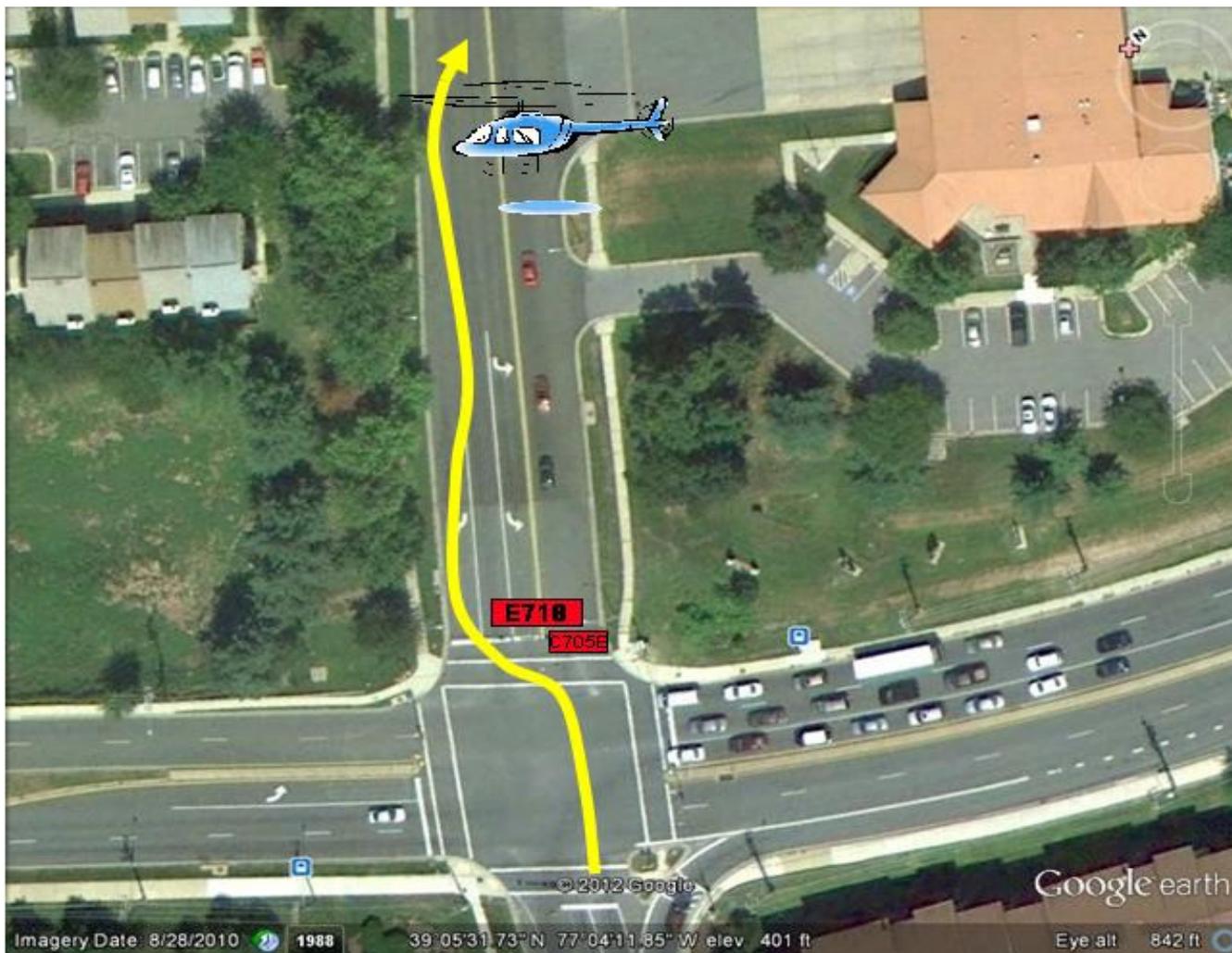
The lanes of Connecticut Ave provide about 100' x 100' of paved area, and a slightly larger area that is free of utility poles. The grassy area is approximately 150' x 250', but requires loading a patient up a hill with about 20' of rise.

Prior to the arrival of Eagle 1, PE718, A705, and C705E had arrived at 25. C705E positioned at the intersection of Bel Pre and Connecticut to limit traffic from entering northbound Connecticut. Leisure World security was re-contacted to confirm that the gate was closed. When Eagle 1 announced that they were 2 minutes out, PE718 moved and parked perpendicularly to traffic. The two units then blocked all of the northbound lane, the southbound left turn lane, and part of the southbound through lane. Approximately one and half lanes of southbound Connecticut Ave were not protected by a vehicle. Once the Eagle was on final approach, PE718 turned off its emergency lights.

As Eagle 1 was touching down, (less than 5 feet off the ground) two privately-owned-vehicles entered the intersection and proceeded north. Both vehicles crossed the double yellow line and two more lanes of traffic, went around PE718 and C705E. The first car drove under the rotor “disc” of Eagle 1 and the second car was stopped by the crew from PE718.

As soon as the pilot saw the first POV, he throttled up, but didn't gain any altitude until the car had driven by the helicopter. The Eagle then relocated to the high grassy hill behind Station 25, and A705 moved there to transfer the patient.

The image below shows the approximate position of apparatus and the yellow line indicates the route of travel that the POV's took:



Lessons Learned and Best Practices:

- Delays frequently occur during helicopter med-evac operations. The relocation to the grassy hill probably added 4 minutes to the patient transfer.
- Open areas (paved or unpaved) are almost always preferable to landing aircraft in traffic lanes.
- The minimum requirement for an LZ landing unit is an engine, truck, or squad with 3 personnel. This is usually adequate for a field, but is not enough for any roadway or most parking lots.
- The officer of the LZ unit should be designated as the “LZ Coordinator”
- Personnel must wear traffic vests, hearing, and eye protection.
- At least one crew member needs to be dedicated to being a “lookout” for changes to surroundings.
- Always expect drivers to behave irrationally. Build the LZ plan on the assumption that all drivers are under the influence, distracted and determined to get past your incident.
- Pedestrians will also be drawn towards helicopters, and they must be kept at a safe distance.
- To prevent drivers from entering an area, there needs to be 100% closure of the road with a physical barrier (apparatus). If there is room for one car to maneuver through, it will.
- Even when a third party (like Leisure World Security) accepts responsibility to block traffic, we need to provide our own redundancies. We need to ensure that we build a safe work zone for our crews, aircrews, and our patients.

Additional Resources:

[MIEMSS / MSP Aviation video on helicopter landing zones](http://emsonlinetraining.org/course/index.php) (requires log-in with EMT provider #)
<http://emsonlinetraining.org/course/index.php>

[FRC Policy and Procedure 24-08 SOP for Helicopter Landings](http://www.montgomerycountymd.gov/content/firerescue/swsj/policyprocedures/ops/frcops24-08.pdf)
<http://www.montgomerycountymd.gov/content/firerescue/swsj/policyprocedures/ops/frcops24-08.pdf>