

Pre-Planning Key at Helicopter Mishap in Staten Island

by Battalion Chief
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all photos by Battalion Chief John A. Calderone

The culprit--the Marine Corps' newest addition to its fleet, the V-22 Osprey. The tilt-rotor hybrid has the high-speed cruise performance of a turboprop aircraft.

Every year during Fleet Week in May, the U.S. Marine Corps stages a mock airborne assault at various locations around New York City. This consists of multiple CH-46 Sea Knight assault transport helicopters loaded with combat troops, escorted by UH-1 Huey and AH-1 Cobra gunships. Each CH-46 carries a pilot, co-pilot, two door gunners and up to 22 fully equipped combat troops.

In Staten Island, this demonstration takes place on the ball fields at Clove Lakes Park. The gunships simulate strafing runs, prepping the landing zone for the larger transport helicopters. The transports approach at treetop level and either land or the troops rappel to the ground on ropes. The troops then fan out and secure the area. The transports leave the area and subsequently land with the gunship escorts.

All helicopters shut down and then are open for public inspection for several hours, while military personnel are available to interact with the public. The troops reassemble and simulate a withdrawal from the landing zone. All helicopters take off and perform several fly-overs, both individually and in formation. Over the years, this has become a major event on Staten Island and led to extensive pre-planning to provide fire protection.

When considering the potential of a helicopter incident, Clove Lakes Park presents some unique hazards. There are no hydrants in the park near the ball field, so water supply is an issue. If an incident did occur, most likely it would be on the field away from the park roadway and on soft ground, probably bogging down fire apparatus before members could reach the scene. Units are pre-positioned to provide maximum coverage of the area:

- Engine 156 hooks up to a hydrant on Clove Road, south of the Park Administration Building. A supply line is stretched down the hill to Engine 163, positioned on the park roadway on the east side of the ball field.
- Purple K Unit 163 is staffed by two Firefighters from Engine 163 and is staged on the park's east roadway, prepared to take immediate action. The Officer and remaining member of Engine 163 and one Firefighter from Engine 156 lay out a dry hand-line, sufficient to reach potential incidents. This line is equipped with a foam nozzle, pickup tube and five-gallon can of foam. Because of the helicopter downwash, hand-lines cannot be pre-positioned on the field and the line must be laid out near the apparatus.
- Ladder 79's apparatus--with the Officer and two Firefighters--is

positioned on the park roadway, east of the ball field and north of Engine 163's apparatus. The Hurst tool and cutter are pre-positioned for use.

- An Initial Attack Task Force is established using Brush Fire Unit (BFU) 3, staffed by the Officer and two members of Engine 156, and Rapid Response Vehicle (RRV) 79, with three Firefighters from Ladder 79. These apparatus are positioned on the park's west roadway, on the west side of the ball field, prepared to take immediate action. BFU 3 carries 500 gallons of water, while RRV 79 is equipped with a Hurst Combi-Tool. Because BFU 3 is equipped with four-wheel-drive capability, it is the apparatus most likely to reach an off-road incident without bogging down.
- Engine 154 and Foam 154 are positioned on the north side of the ball field. They can respond on either the east or west roadway as needed.
- EMS units stage on the east roadway, north of Ladder 79's apparatus, near the park entrance.

All members are in full bunker gear during the demonstration, landing, take-off or whenever the helicopters have their engines running. All members are equipped with SCBA for firefighting and any potential rescue attempts.

Units are advised to avoid driving on the field and stay on the park roadways unless there is an actual emergency. Since the helicopters land in close formation, if an actual emergency occurs, units are advised that other helicopters are in operation with rotor blades turning and extreme care has to be used in attempting to reach an incident.

When traveling across the ball field, it is expected that apparatus probably will bog down. Apparatus should be driven at a steady speed without stopping until reaching the point of operation. If an apparatus bogs down, units are advised to take whatever action is possible from that point.

The primary method for attack for a crash/fire would be utilization of the Purple K apparatus, attempting a quick knockdown, while foam attack and supply lines are positioned. Units would have to rely on booster water until supply lines are in place.

On Saturday, May 29, 2010, a crowd estimated at more than 1000 people was in attendance to view the Marine Corps demonstration. Units were assigned to Box 867 at 0800 hours in order to be in place when the helicopters arrived shortly after 0900 hours. Battalion Chief Daniel O'Gara, Battalion 22, was the Incident Commander (IC).



BFU 3 arrived on-scene about nine seconds after the mishap took place.



From units staged on-scene, FDNY members arrived on foot within seconds to render aid to the injured.

This event started out as in prior years with the gunships making their simulated attack, followed by the transports disembarking their combat troops. However, this year, instead of all CH-46 Sea Knights, the Marine Corps was showcasing the newest addition to its fleet--the V-22 Osprey--replacing one of the CH-46 helicopters.

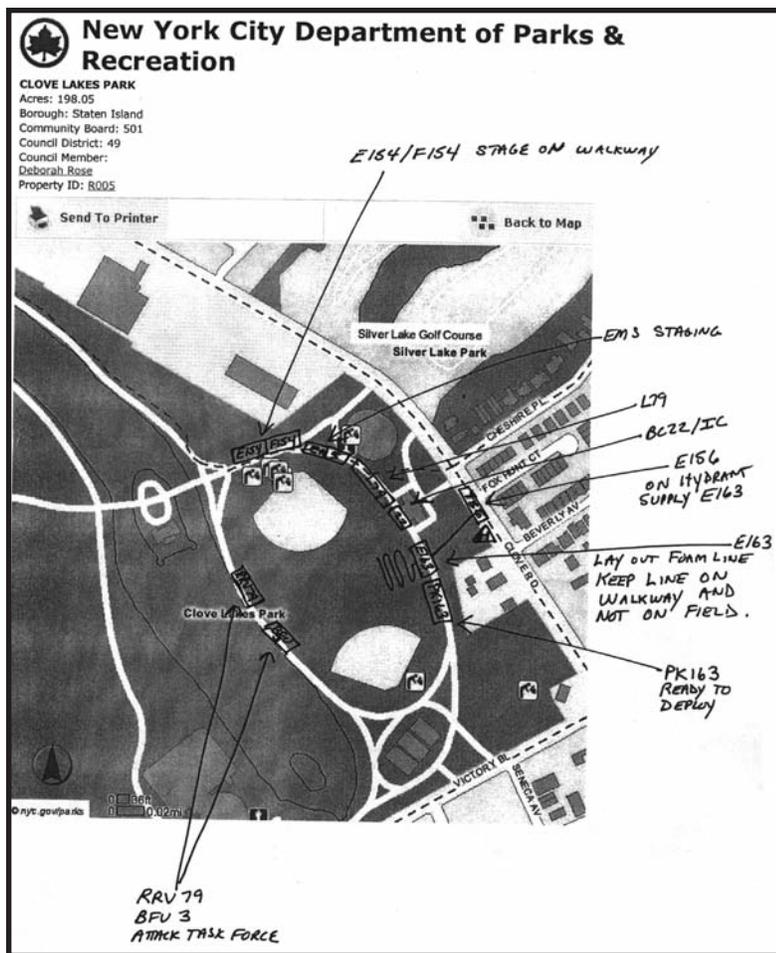
The Osprey is a tilt-rotor hybrid that combines the functionality of a helicopter with the long-range, high-speed cruise performance of a turboprop aircraft. It has a crew of four and normally carries 24 fully equipped combat troops, but can carry a maximum of 32. It is intended to eventually replace the CH-46.

As the Osprey approached from the north, slightly higher than the trees, its rotor downwash, which was notably stronger than that of the CH-46, kicked up a tremendous amount of debris and caused numerous large tree branches to break under the strain. Many of the branches landed on people who were sitting under the trees to watch the demonstration. Ten civilians were injured, with seven collared with c-spine immobilization devices, boarded and removed to hospitals. The injured ranged in age from one to 80. Most of the injuries sustained were lacerations and bruises. All of the injured were clustered under a group of trees at the northwest corner of the ball field, directly below the Osprey's approach.

The Initial Attack Task Force, under the command of Lieutenant Anthony Matteo, reacted quickly and was at the point of the mishap in fewer than 10 seconds. Members immediately assisted in removing victims from under the branches and administering first aid. Likewise, the members of Engine 154, led by Lieutenant Louis Demontreux, responded immediately on foot to assist. Chief O'Gara immediately ordered the transmission of a 10-75, which was handled by Battalion Firefighter Peter Simoncini. Incoming units were advised to report in with CFR equipment and backboards.

Engine 163, commanded by Lieutenant Anthony Sutera, and Ladder 79, led by Lieutenant Jeff Johnson, maintained their positions, providing protection until the remaining helicopters landed and shut down.

All of the engine companies responding on the 10-75 were used to provide first aid. The rescue and ladder companies were deployed to search the surrounding areas, establish safety zones and, later, use chain saws to remove branches that were hanging dangerously.



The 10-75 Chief, Battalion 21, Battalion Chief Richard Callery, was designated victim triage Officer. He coordinated victim assessment and EMS operations. Deputy Chief Roger Sakowich, Division 8, assumed command, followed by Deputy Assistant Chief James Leonard, Brooklyn Borough Commander.

Despite the accident, the U.S. Marine Corps demonstration continued as scheduled and units were returned to their standby positions as quickly as possible.

Lessons reinforced

- There should always be an FDNY presence at large-scale public events such as this. The commitment of resources should be commensurate with the potential hazard. Anything can and often does happen.
- The members of Engine 163, Purple K 163 and Ladder 79 exhibited operational discipline by maintaining their assigned positions to protect the helicopters and military personnel until all helicopters had shut down, despite being within sight of the multiple injuries across the ball field and the natural urge to assist the injured.
- When there are a large number of victims at a non-fire incident, do not hesitate to transmit appropriate signals to summon additional fire resources to the scene. Rapid arrival of the balance of the first-alarm assignment resulted in effective patient care, immobilization and prevention of further injuries.

About the Author...

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