NYC Helicopter Tragedy - East River
March 11, 2018

5-Why Cause Map™

- Impact to Safety
- 5 fatalities, drowning
- Passengers trapped in helicopter upside down in water
- Passengers unable to exit aircraft quickly
- Passenger wearing fall protection harnesses
- Helicopter was flown with "Doors off"

4-Why Cause Map™

- Impact to Safety
- 5 fatalities, drowning
- Helicopter inverted in water
- Helicopter rolled to one side
- Floats didn't inflate evenly?

Water Landing

- Impact to Safety
- 5 fatalities, drowning
- Helicopter came down in water, moderate impact
- Pilot directed aircraft toward East River
- Pilot decided Central Park risk was too high?

Loss of Engine

- Impact to Safety
- 5 fatalities, drowning
- Engine loss of function
- Engine lost fuel supply
- Emergency fuel shut off valve closed
- Restraint of front passenger hooked around valve
- Passenger leaned back to take picture of their feet

6-Why Cause Map™

- Impact to Safety
- 5 fatalities, drowning
- Engine loss of function
- Engine lost fuel supply
- Emergency fuel shut off valve closed
- Restraint of front passenger hooked around valve
- Passenger leaned back to take picture of their feet

3-Why Cause Map™

- Impact to Safety
- 1 survivor (pilot)
- Pilot exited aircraft quickly
- Pilot seatbelt buckle designed for quick release

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15-Why Cause Map™
A Cause-and-Effect

Impact to Safety
5 fatalities, drowning
Passengers trapped in helicopter upside down in water

Passengers unable to exit aircraft quickly
Passenger wearing fall protection harnesses

Harneses

Water Landing
Helicopter came down in water, moderate impact
Pilot directed aircraft toward East River

AND

Helicopter inverted in water

Loss of Engine
Pilot performed auto-rotation
Engine loss of function
Emergency fuel shut off valve closed
Restraint of front passenger hooked around valve

AND

Pilot decided Central Park risk was too high?

AND

Harnesses

Loss of Engine
Populator wearing fall protection harnesses

Water Landing
Helicopter not buoyant, doesn't float

AND

Flotation System
Emergency floats didn't inflate evenly?

AND

Harnesses

Flotation System

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