

Review

The World Trade Center Attack**The paramedic response: an insider's view**

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Abstract

The World Trade Center attack and collapse is the first time an aircraft has been used as a weapon of mass effect. The scale and magnitude of this manmade disaster can only be compared with a natural catastrophe such as the Armenian earthquake of December 1988. The importance of an incident command system and the Simple Triage and Rapid Treatment, and the need for fixed Casualty Collection Points, is explained.

Keywords casualty collection, incident command, World Trade Center

A mass casualty incident in New York City is defined as any incident that produces five or more patients with the potential need for extraordinary resources [1]. Managing a mass casualty incident begins with notifying local emergency response agencies. Whichever agency arrives first sizes up the situation and provides a preliminary situation report. This forms the basis of an Incident Command System (ICS). The accuracy of the ICS plan is crucial to the successful command and control of an incident. This discussion will outline the mass casualty incident response and the ICS plan of the World Trade Center attack through the personal experiences of the author. This article is purely from the perspective of a paramedic 'on the ground' and should not be construed as official views or policy of the City of New York Fire Department.

Incident management system and START triage

All incidents have an Incident Commander. The World Trade Center attack was primarily an aircraft crash, so the Incident Commander came from the Fire Department of New York (FDNY). As part of the ICS plan, the Incident Commander breaks down the operation into task-specific branches. The tasks include communications, logistics, setting up a morgue, safety, transportation, triage, and treatment. The idea is that

each branch operates dynamically and can expand or contract as the situation escalates or de-escalates.

In New York City, mass casualty triage is accomplished through the START system – Simple Triage and Rapid Treatment [2]. This method is designed to allow advanced Life Support Paramedics and Basic Life Support Emergency Medical Technicians to triage patients in 60 s or less using three observations: respiration, circulation and mental status. The goal is to identify the most life threatening problem, to correct it, to assign the patient a priority, and to move on. The patients' priority is indicated by a color-coded triage card that is tagged to them and holds the most basic information. New York City uses the METTAG® triage card [3], which uses color to identify patient status: black for deceased, red for when immediate attention is needed, yellow for when attention can be delayed, and green for minor injuries. After triage, those with green tags are encouraged to assist the more severely injured (called 'buddy aid'), which helps to maximize the amount of care one paramedic can provide.

11 September 2001

When the FDNY heard an aircraft had struck the World Trade Center, my Chief and I assumed it was a small observation plane or a light aircraft that had left its authorized air corridor.

That was until we turned on the local 24 hour television news station. It took less than 30 min to travel from the Bronx to lower Manhattan, despite it being the morning rush hour. The New York Police Department had done a magnificent job of clearing major roads and thoroughfares.

On arrival we received orders from the Emergency Medical Services (EMS) Major Response Duty Chief to take over medical operations inside 1 World Trade Center. Inside 1 World Trade Center, the tower that had just been hit, a command station had already been set up and was staffed by the FDNY, the New York Police Department, and the Port Authority Police Department of New York and New Jersey. My Chief and myself were asked to organize a safe and, if possible, covered way out for self-evacuating civilians and to create a triage area on a floor in 1 World Trade Center below the fire. Before much could be achieved, however, the second aircraft hit Tower 2 and, as we all know, Tower 2 soon collapsed.

The collapse of Tower 2 caused havoc for the command and control structure, overloaded the operations' radio frequencies, and resulted in immense loss of life among the emergency teams. It was difficult to adapt operations to the new demands; a difficulty that increased exponentially when Tower 1 collapsed. However, we rapidly re-established a temporary medical command post at one of the adjacent undamaged hotels and the operation was once again broken down into task-specific branches. This was a monumental task given the psychological impact of the event, the damage to local telephone services, and what can only be described as the 'fog of war' view at the site.

After the collapses

The EMS operations resumed literally before the dust settled. Triage and treatment teams entered the collapse zone to begin what would be a Herculean effort. To relieve the downtown hospitals from the influx of patients, two Casualty Collection Points were created to treat the throngs of self-evacuating civilians from Lower Manhattan: to the north, Chelsea Recreational Piers; and to the east, Staten Island Ferry terminal. These two Casualty Collection Points also enabled better command and control, better patient tracking, and provided improved safety for EMS responders and civilians. Within the collapse zone, patients were being transported across long and rough distances because of the dust and debris. To assist the on-scene personnel, the EMS deployed its fleet of all-terrain vehicles, which became the workhorse of the operation, running 24 hours a day.

By this time we were receiving assistance from EMS units in the surrounding New York counties and New Jersey. At first, we had problems communicating with one another and tracking patients, but this was quickly overcome once we acquired compatible radio equipment and standardized our tracking mechanisms.

My chief and myself were given the task of setting up the Staten Island Ferry Casualty Collection Point. While working around the tip of lower Manhattan, we saw a flotilla of every conceivable craft rushing into port, standing against any sea wall space they could find, in an attempt to help civilians (injured to varying degrees) get away from the dust and debris covering Manhattan. We set up an aide station inside the ferry terminal capable of treating upwards of 100 casualties up to the level of advanced life support. We were joined by Emergency Medical Technicians and reinforced by off-duty paramedics, all prepared to receive and treat the crush injuries, dust impacted airways, and burns. However, the volume of casualties was unexpectedly light. After the first 24 hours of the operation, no further survivors were recovered from the collapse zone or void spaces.

Problems created by good intentions

Early on in the incident, we saw many well-intentioned medical professionals involving themselves in situations for which they were unprepared, untrained, and unequipped. Several lone physicians, dressed in scrubs and running shoes, were found in the collapse zone providing medical intervention to potentially trapped victims. In some cases, impromptu medical clinics had been established. Once identified, these physicians were politely but firmly escorted out of the area because they created problems, such as medical oversight and accountability, liability, patient tracking, and safety to name but a few. Part of the FDNY EMS response is to call up 'Response Physicians', medical practitioners trained and authorized to work in such conditions.

As if the traveling medical shows were not enough, in the collapse zone, in heavily damaged buildings and covered in dust, well-intentioned people offered food to the rescuers. However, given the disruption to water and gas, the lack of hand-washing, unrefrigerated food, poorly cooked food, and dust-contaminated food all presented the potential to cause illness among the already worn-down rescuers. Public health officials and the police eventually eliminated these 'chow lines', and a more organized system of mass feeding was organized.

Conclusion

Clearly the World Trade Center attack opens a new and frightening chapter in history. The unprecedented use of commercial airliners as weapons of mass effect outlines the need for all public safety response agencies to seriously review and perhaps even modify their response and operational doctrine in dealing with terrorist attacks.

LC is the Advanced Life Support Coordinator and a hazardous materials technician of the EMS Division Two of the FDNY. He has 15 years' experience of the New York City EMS system. EMS Division Two is located at Jacobi Hospital in North Bronx, New York. The opinions expressed here are those of LC and do not necessarily reflect those of the FDNY EMS.

The Emergency Medical Service Command Memorial Foundation accepts donations to benefit the widows and children of the members of the FDNY EMS Command who made the supreme sacrifice in the

line of duty. Donations can be sent to: The EMS Memorial Foundation, P.O. Box 2650, New York, NY 10108, USA.

Competing interests

None declared.

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This article, and the series it is part of, is dedicated to the first responders – fire, police and medical personnel – who attended the World Trade Center disaster of 11 September 2001. They did not hesitate to place themselves in harm's way to rescue the innocent, and without their efforts many more would have perished. They will not be forgotten.

References

1. The Regional Emergency Medical Council of New York City: *The Regional Emergency Medical Advisory Committee of New York City – Pre-Hospital Treatment Protocols*. New York: The Regional Emergency Medical Council of New York City; 1996.
2. *START System*. Newport Beach, CA: Hoag Memorial Hospital.
3. **METTAG®**. *J Civil Defense*.