



# Montgomery County Fire and Rescue Service

# Post Incident Analysis



Fatal Plane Crash 19733 Drop Forge Lane Gaithersburg, MD

Incident Date: December 8<sup>th</sup>, 2014 Incident # 14-0140425 Submitted by Chief Scott Goldstein

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#### **Incident Overview**

Just before 10:45 am on December 8, 2014, the Emergency Communication Center (ECC) began receiving 9-1-1 calls reporting "houses on fire and an explosion" near Snouffer School Road in Gaithersburg, MD. The first callers from the Army Reserve Center at 8791 Snouffer School Road reported a fire across the street from their facility. ECC staff began to pinpoint the event location while additional calls were coming in reporting that a plane had crashed into a building and that more than one house on Drop Forge Lane was involved.

Paramedic Engine 728 (the first due engine company to the Airpark and the reported location), was on-the-air near Airpark Road and Woodfield Road, adjacent to the airpark. ECC sent Paramedic Engine 728 a mobile data computer message advising them "plane crash coming" followed by "not sure area yet." As this message was received, the crew of Paramedic Engine 728 looked over the horizon and observed a large column of black smoke from the northwest corner of the general airpark area.

At this time ECC, transmitted the pre-alert for the small plane crash with an initial address of 8791 Snouffer School Road.

As ECC received additional 9-1-1 calls indicating that it might be a 12-passenger aircraft, ECC upgraded the call type from "small plane" to "large plane". The call types are based on the estimated passenger capacity of a plane, with less than four (4) being a small plane and more than four (4) being a large plane. Due to the "large plane" description and the visible volume of smoke, Battalion Chief 705 requested that ECC add the medical ambulance bus and medical care support unit(s) to the event.

As Paramedic Engine 728 approached the intersection of Snouffer School Rd and Alliston Hollow Way, they saw a large column of black smoke in front of them, and were directed by uniform Army Reserve personnel to turn onto Ridge Heights Drive and then Drop Forge Lane. Paramedic Engine 728's initial onscene transmission was:

"working fire - plane into a house – report of three people in the house – going into initial attack mode"



Conditions prior to arrival of Paramedic Engine 728

When asked for water supply information by Paramedic Engine 717, Paramedic Engine 728 reported they were "taking a position on Drop Forge Lane."

Paramedic Engine 728's officer instructed his crew to advance a 2 1/2" hand line while he pulled a 1 ¾" hand line to front of the house that had fire showing (later identified as19733 Drop Forge Lane). The Captain received reports from neighbors that there were possibly three (3) people trapped inside the house. Due to the uncertainty of the event location, the Duty Operations Chief instructed all units that were not part of the initial response to stage out on Snouffer School Road.

Shortly after Paramedic Engine 728 arrived on-scene, the Operations Division Chief arrived. This coincided with the establishment of Paramedic Engine 728's water supply that had been "hand-jacked" back to the hydrant at the corner of Drop Forge Lane and Blue Smoke Drive. This was accomplished by the engine driver and bystanders who were recruited to help.

The initial action plan of Paramedic Engine 728 was to focus on the fire conditions at 19733 Drop Forge Lane as the fuselage in front of 19737 Drop Forge Lane did not appear to contain survivors and the fire there was not a serious threat to that house. The Captain instructed one fire fighter to focus the

2 ½" hand line on Side Alpha while he and the second fire fighter attempted an interior search for the reported occupants.

As Paramedic Engine 728's Captain and fire fighter were preparing to enter the house via the front door, an explosion occurred on the first floor, which showered Paramedic Engine 728's crew with glass. Upon forcing open the front door, Paramedic Engine 728's crew was confronted with a wall of flame. In reaction to those conditions, Paramedic Engine 728's Captain and fire fighter repositioned and entered Quadrant Delta via the interior garage door.

The initial attempt was limited as the Captain and fire fighter were met with considerable heat and flame rollover along the ceiling while only ten (10) feet inside the house. During this entry, Paramedic Engine 728's captain assessed the occupant's survivability profile. That assessment indicated a very low likelihood of survival based on the intense heat and smoke conditions. Paramedic Engine 728's crew re-formed on Side Alpha and the 1 ¾" hand line was added to the fire suppression efforts from Side Alpha.

At this point the Operations Division Chief assumed Command and established the initial stationary Command Post in the cab of Paramedic Engine 728. This location was selected in order to leave the cul-de-sac open for other primary apparatus and the fact that his assigned vehicle would not be adequate for command of such a large incident. Because the primary residence (19733) backed up to Snouffer School Road, Command announced that Side Charlie could be accessed from Snouffer School Road and that the third due engine and second due truck should operate from Snouffer School. Command also requested a Task Force.

This incident consisted of several incidents within an incident. The first arriving units were faced with an advanced structure fire with reported victims trapped; there was a plane fuselage on fire in the Exposure Bravo driveway; there were three (3) structures with visible structural damage and possible victims; and there was a significant jet fuel exposure and environmental issue.

In light of the complexity of the incidents present, Command deviated from the policy 24-07AMII, **SOP for Safe Structural Firefighting Operations** and assigned units to critical incident needs as they arrived. This can best be described as:

- Fire suppression, search and rescue at 19733 Drop Forge Lane
- Fire suppression and search of the plane fuselage
- Search of the damaged structures/exposures
- Rapid intervention both for 19733 Drop Forge Lane and the plane
- Medical treatment of located patients

It took a few minutes for Command and the units operating to establish clear geographic designations of the structures involved. Initial instructions and assignments consisted of "fire building", Exposure Bravo, and "main house" all referring to 19733 Drop Forge Lane. Early on, Command requested exact house numbers be obtained for each structure in the cul-de-sac. This post incident analysis will refer to the assignments based upon their final designation and terminology used.

# 19733 - Primary Residence

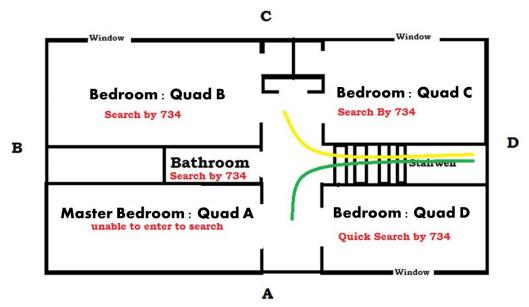
As outlined earlier, Paramedic Engine 728 initiated operations on this house based upon the volume of fire and the report of people trapped. As Paramedic Engine 734 and Truck 734 arrived, they were assigned to Division Charlie on 19733 while Paramedic Engine 728 and Tower 735, and later Engine 753, were assigned Division Alpha.

Upon arrival, crews encountered fire from Side Alpha and Charlie with the main component being on the first and second levels in both Quadrant Alpha and Bravo along with fire from the Side Bravo attic gable vent. Paramedic Engine 734 and Truck 734 encountered fire presenting from Quadrant Bravo on the first and second levels from Side Charlie. As Paramedic Engine 728 worked from Side Alpha, Paramedic Engine 734 and Truck 734 entered from Side Charlie through the rear sliding door and encountered moderate smoke. Paramedic Engine 734 and Truck 734 then searched the den/living room and began knocking the fire in the kitchen. Command then announced that all operations would be from the exterior to which Paramedic Engine 734 and Truck 734 advised they were inside. Command supported the transition to interior operations.

At the top landing (on the 2<sup>nd</sup> floor), Paramedic Engine 734 knocked back the fire to the left of the landing, Quadrant Delta, and then moved to the right, Quadrant Charlie. Both Paramedic Engine 734 and Truck 734 attempted to enter the Quadrant Alpha room but encountered substantial floor sag and structural issues. Fire in a small bathroom at the top of the steps was extinguished and searched and fire was also extinguished in a back bedroom (which was thought to be a nursery). The hose line remained in service while Truck 734 searched. The crew continued to operate the hose line in the overhead space. Paramedic Engine 734's line would periodically need to be moved to the left of the landing as the fire would continually roll around from other directions and threaten crews. The hose line was operated back and forth between the front and back of the house while the search was ongoing.

Truck 734's officer returned to the first floor and located Paramedic Engine 728 in the garage and had them bring their line to the second floor. Upon reaching the second floor, Paramedic Engine 728 was assigned as Division 2 Supervisor and controlled the fire to the left of the landing, while Paramedic Engine 734

controlled the fire to the right. Paramedic Engine 728 attempted to enter the Quadrant Alpha bedroom as well. Truck 734 moved to the other back bedroom and continued to search. Paramedic Engine 734 worked on controlling the fire in the attic space above the room while Truck 734 searched. Crews faced challenging search conditions with the drywall, insulation, and attic content dropping down. As the structural conditions worsened, crews in 19733 successfully searched three (3) quadrants of the second floor. The only quadrant that was not entered due to a sagging floor was Quadrant Alpha.



Floorplan of 19733, 2<sup>nd</sup> Floor – As perceived by crews Yellow Line: PE734 and Green Line: PE728

At roughly 20 minutes into on-scene operations, Battalion Chief 705 reported a partial collapse on the second floor, which lead Command to direct all units to evacuate 19733.

At this point, Battalion Chief 705 was assigned to be the 19733 group supervisor and operations turned to be an exterior defensive operation utilizing multiple hand lines and then Blitzfire lines.





View of fuselage in driveway of 19737

The plane fuselage was sitting in the driveway of Exposure Bravo and presented a moderate fire exposure to the structure. Paramedic Engine 717 was assigned to the fire in the fuselage and to 19737 Drop Forge Lane. As the crew advanced lines to the fuselage and the house, assessments determined that the fuselage fire had not extended to the house.

As a result of the plane crash and the leak of jet fuel, crews report a large volume of flammable liquid in the cul-de-sac (the closed end of Drop Forge La), which needed to be blanketed with class B foam. Paramedic Engine 729 was assigned to lay down a protective foam blanket and was added to the 19737 Division.



View of plane fuselage and proximity to structure

# Search

As multiple companies were assigned and transitioned to interior operations on 19733, searches also needed to be accomplished on four (4) adjacent residences. These consisted of 19729, 19733, 19737, and 19741. All of these structures were either directly threated by the fires at 19733 and 19737 or presented visible structural damage. This damage appeared to be from the plane's flight path and included slices/blow outs of the second floors and roof damage. Rescue Squad 717 was assigned as the Search Group and given the task of searching all of these residences.

As would be later discovered, Montgomery County Police and Sheriffs completed the entry and search of 19737 and 19741 and assisted residents and domestic animals out prior to, and concurrent with, fire rescue's arrival. Rescue Squad 717 located another domestic animal in 19741 and reunited it with the owners. After the evacuation of 19733, and once the bulk of the fire was extinguished, Rescue Squad 717 joined up with Truck 731 to perform a secondary search of 19733. This included a water removal process in order to search the basement.

# **Rapid Intervention**

To address the safety concerns of both 19733 and 19737, Paramedic Engine 708 was initially assigned as the Rapid Intervention Company. Command assigned them to assemble in the cul-de-sac to support both 19733 and 19737,

which placed them on Side Alpha of the primary residence. As the Rapid Intervention Dispatch arrived, Truck 731, Rescue Squad 729, and Medic 708 Bravo were assigned as the Rapid Intervention Group with Paramedic Engine 708 as the Supervisor.

The Rapid Intervention Group split resources to Sides Alpha and Charlie of 19733 to better cover the on-going operations.

The sequence of arrival and duties for the units assigned to 19737 and Rapid Intervention swapped back and forth. While Paramedic Engine 708's crew assembled tools and equipment for rapid intervention, the Lieutenant split the crew and instructed the nozzle person to focus the hose line on the plane fuselage. As Paramedic Engine 708 knocked the fire involving the fuselage, Paramedic Engine 717 operated from the exterior on Side Bravo and then Side Alpha on 19733.

#### Command

As noted above, the Operations Division Chief assumed Command from Paramedic Engine 728 and established a stationary Command Post in the cab of Paramedic Engine 728. Chief 703 Foxtrot expanded the Command Team and took the responsibility for all Emergency Medical Service (EMS) and Hazmat resources. Shortly thereafter, the off-duty A-shift Duty Chief arrived and joined the others in Paramedic Engine 728.

With some coordination, Battalion Chief 703 was able to position his battalion command platform in the cul-de-sac adjacent to Paramedic Engine 728. Shortly after that, the Battalion 705 command platform arrived and position directly behind Battalion 703. The command post then transitioned from the front of Paramedic Engine 728 to Battalion 703. At this point, the Command Team consisted of the Operations Division Chief, Chief 703 Foxtrot, the off-duty A-shift Duty Chief, and Battalion Chief 703.

#### Hazmat

Early in the incident, all hazardous material units where transitioned from 7-Charlie to 7-Delta and then eventually to 7-Echo. Initial hazmat actions focused on metering in front of 19733, 19737, around the fuselage and 19741. The meter readings indicated a minor lower explosive limit (LEL) presence immediately around the fuselage.

As noted the presence of aviation fuel in front of 19733 and 19737 created a significant problem. Initially, Paramedic Engine 725 was assigned as the Hazmat Group Supervisor with the units from station 7 and 25 and tasked with mitigating the fuel run off. The Special Operations Battalion Chief assumed the Group Supervisor role. Notifications were made to the Montgomery County Department of Environmental Protection and the Maryland Department of the Environment.

### **EMS**

A large number of Emergency Medical Services/Mass Casualty Incident (EMS/MCI) resources were dispatched and responded. The EMS units transitioned over to 7-Delta and Emergency Medical Services 703 was assigned to prepare for patient triage and treatment. The initial planning figure transmitted by Chief 703 Foxtrot to Emergency Medical Services 703 was to anticipate or prepare for 10 to 12 patients.

As the event unfolded it was found that all three (3) occupants of the plane and the three (3) residents in 19733 died from the crash or exposure to the fire conditions. EMS crews assessed residents that were evacuated from other homes in the cul-de-sac, but none required transport.

# **Occupant Identification**

As Paramedic Engine 728 noted with his initial on-scene report, neighbors advised of three (3) residents inside 19733. Due to the multiple houses involved as well as the plane, considerable efforts were devoted to identifying and tracking down residents from the five (5) houses in the cul-de-sac and the reported number of passengers on the plane.

This was initially coordinated off-duty A-shift Duty Chief and then transitioned to the Operations Battalion Chief. These personnel worked with neighbors, law enforcement, aviation officials, Montgomery Airpark management, and other sources to gain confidence in the occupant- count inside the plane and 19733.

As information was obtained and verified, it became clear that three (3) residents had been in 19733 at the time of the plane crash and three (3) people had been on the aircraft. All other residents were accounted for. Initial searches of the fuselage identified priority-four victims within and near the fuselage. Prior to when the structural concerns forced the evacuation of 19733, primary searches were completed in three (3) quadrants of the second floor, two (2) quadrants of the first floor; no searches were completed in the basement.

Personnel from the Fire and Explosive Investigations section assisted with occupant / victim identification and interviews due to the potential of a fire related fatality.

#### **Victim Location and Removal**

After the fire was extinguished and a multi-agency briefing occurred and a transition plan was developed. The included a request for Technical Rescue Team resources to stabilize 19733 so that the missing victims could be located. The on-site NTSB officials indicated that victim location and structural stabilization could be immediately implemented.

Truck 731 and Rescue Squad 729, both part of the Rapid Intervention Group, were reassigned to develop a shoring and structural assessment plan prior to the arrival of additional technical rescue resources. During this assessment, the three (3) victims in 19733 were located. These crews coordinated with law enforcement to recover the victims.

# **Extended Operations**

After the victims were extricated from the aircraft fuselage, the fire rescue presence transitioned to a "fire watch" of the primary residence and a support role to overnight law enforcement activities. The fire rescue presence ended just prior to the 0700 hour shift change on December 9<sup>th</sup>.

# **Structure/Property Layout**

The incident scene was spread out over four (4) residential homes at the end of a cul-de-sac in the Hunters Woods neighborhood. The rear of the two (2) primary houses impacted faced Snouffer School Road. This was beneficial for apparatus and personnel access and offset the limitations of the primary street being a cul-de-sac.



Layout of Drop Forge Lane cul-de-sac

Each of the residences along Drop Forge Lane consisted of lightweight wood frame construction two (2) story houses with basements. The houses average 1,800 square feet and were constructed in the early 1980s.

No fire code or building code issues were noted. As identified earlier, the significant structural damage on Side Alpha of the 19733 lead to a structural compromise that limited fire rescue operations in Quadrant Alpha of the first and second floor.

#### **Communications**

As the event developed and span of control was established, separate functions were split out to separate radio talk groups. The initial tactical talk group was 7-Charlie which remained the primary command and operations talk group throughout the incident.

Early in the incident, an announcement was made that all EMS units and hazardous materials units were to transition to 7-Delta. Later, as the special operations functions of hazardous material management were assigned, all hazmat operations and units were transitioned to 7-Echo while EMS remained on 7-Delta.

Additional radio support was requested and provided by the MCFRS Telecomm Section, including providing portable radio battery exchange and charging capability. Additionally, the Telecomm Section provided radio operators and support personnel to allow command officers to manage divisions and groups.

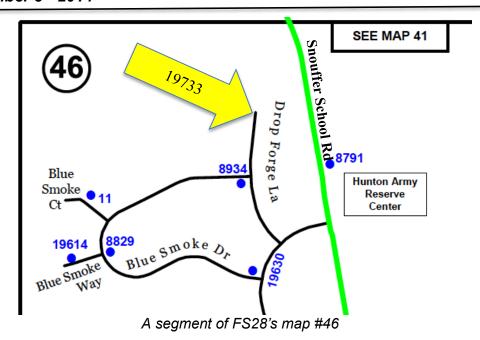
ECC personnel (call takers, dispatchers, and supervisors) effectively transmitted critical and complex information as the incident began and expanded. These actions continued until the event began to downsize and less ECC support was required.

Radio reception in the Hunters Woods neighborhood was good and the vehicle repeater system (VRS) was not needed.

As demonstrated in prior major incidents, the mobile data computer (MDC) speed in receiving event updates or dispatch messages drops as additional units are assigned to an incident or logged on to the impacted dispatch groups. This reduction in functionality hampers the Command Team members who often use the MDC to avoid unnecessary radio transmissions.

#### **Pre-Emergency Planning**

There is no pre-fire plan for the single family homes in the Hunters Woods neighborhood. Fire Station 28 street map # 46 provides an effective overview of the street layout and hydrant locations.



Station 28 personnel, along with surrounding station personnel, have core knowledge of aircraft emergency operations supported by the baseline reference material on the response to aircraft emergencies. MCFRS Policy 24-09, **Response to Aircraft Emergencies**, which was published on July 15, 2014. This provides the necessary safety and operating considerations when responding to an aircraft emergency.

### **Support Functions**

This event was very complex and drew upon many support functions, both internal to fire rescue as well as external. Some traditional support elements are discussed in the structure of this post incident analysis. This event clearly required the formation of a unified command structure.

The unified command consisted of Montgomery County Fire and Rescue Services (MCFRS) and Montgomery County Police Department (MCPD) as the lead organizations with support from many other law enforcement and federal transportation agencies.

Particularly because of cold weather (30-35 degrees Fahrenheit), extended onscene operations necessitated utilizing multiple canteens for initial on-scene rehabilitation. This role was later transitioned to Red Cross Services for meals.

Units from the Hazmat Group secured the gas and electric service to the affected houses and coordinated with the utility companies for long-term isolation. This included excavation by Washington Gas to secure the natural gas service to the primary structure because the gas meter was within the identified collapse zone.

PEPCO initially isolated service to eight (8) houses in the cul-de-sac and then limited that to only 19733 via a physical underground service disconnect.

Once all of the victims had been located, the incident transitioned from a fire rescue lead with law enforcement support to a law enforcement lead with fire rescue support. This formal transition occurred near sunset on the first day as the aviation agencies, National Transportation Safety Board (NTSB) and the Federal Aviation Administration (FAA) ramped up their on-scene operations.

As part of the initial response to such a large-scale emergency, multiple law enforcement agencies participated. This included many elements from the Montgomery County Police Department, members from the Montgomery County Sherriff's Office, and the Maryland National Capital Park and Planning Police, Montgomery Division. As the event expanded, law enforcement support was provided by the Maryland State Police.

Due to the incident's proximity to the Army Reserve Center, members of the Army reserve played critical roles during the initial minutes and as the incident extended. Military personnel heard and felt the impact of the plane crash and the explosion from inside their building. They immediately reported outside and began initial actions of scene assessment, victim removal, perimeter establishment, traffic control, and supply line establishment to Side Charlie. The military personnel then transitioned into a support role as their parking lot became a staging area and they opened their building to first responders. Later planning meetings and briefings occurred in the Army Reserve building.

#### Safety

The initial incident scene safety officer assignment was given to Safety 700 upon his arrival. As the incident progressed, the Safety Chief arrived and the incident scene safety officer role was split up, Safety 700 on Side Charlie and the Safety Chief on Side Alpha.

As the stability of 19733 deteriorated, the incident scene safety officers utilized red and white barrier tape to identify an exclusion zone around 19733. Additionally, a hot zone and a warm zone were established. The safety concerns were highlighted continuously during the operations. Twice during the incident, Command highlighted on 7-Charlie that only units activity engaged in operations were to be near the structures; all other personnel were to be on the asphalt of the cul-de-sac. The zones were marked and identified as:

- Hot Zone red and white barrier tape completely off limits
- Warm Zone between asphalt and red/white barrier tape full PPE without SCBA
- Cold Zone cul-de-sac personnel staging no PPE required

As plans were developed for the anticipated shoring/stabilization operations, a technical safety officer was assigned from the technical rescue team.

As noted earlier, 19733 sustained structural compromise when elements of the aircraft pierced Side Alpha. This initiated a very intense fire that trapped the occupants on the second floor and attacked the structural integrity in Quadrant Alpha. All units operating in 19733 and those observing the fire condition outside continuously re-assessed the risk/benefit of interior operations. This risk/benefit calculated a large factor of fire fighter risk as crews were searching for three (3) occupants reported to be inside.



As initial operations were wrapping up, decontamination and responder contamination due to foam, jet fuel, and other substances was addressed. Command personnel set the baseline that all first alarm and rapid intervention units would send out their personal protective equipment for cleaning. This required the utilization of second sets of personal protective equipment that were obtained from Dover Road Logistics and regular duty assignments.

# **Accountability**

As the conditions deteriorated in 19733 and the partial collapse was reported, all units in 19733 were evacuated. This lead to the first accountability survey while operations transitioned to exterior on 19733. As the main elements of on-scene operations consisted of exterior roles, Command instructed ECC to discontinue incident duration reminders.

#### Resources

1 <sup>st</sup>	Alarm	at 10:45	hours

Paramedic Engine 728 Truck 734 Ambulance 728
Paramedic Engine 717 Tower 735 Ambulance 717
Paramedic Engine 708 Rescue Squad 717 Medic 742 Bravo

Paramedic Engine 734 Battalion Chief 705 Engine 753 Battalion Chief 703

> Hazmat 707 Engine 725 Ambulance 725

RID at 10:48 hours

Truck 731 Medic 708 Bravo

Rescue Squad 729

# **Upgrade to Large Plane at 10:50 hours**

Medical Ambulance Bus 722 Medical Care Support Unit 722 this committed Paramedic Engine 722 to the event

Task Force at 10:53 hours

Paramedic Engine 729 Aerial Tower 703

Paramedic Engine 735

#### Other

Duty Chief 700 Safety 700

Chief 729 Emergency Medical Services 703
Chief 717 Bravo Communications Chief 700
Chief 700 Operations Chief 700
Chief 703 Foxtrot Executive Chief 700

Chief 708 Communications Battalion 700

Inspector 710 Canteen 708 and 717

Operations Battalion 700 Fire Explosives Investigations 758

Fire Explosives Investigations 762 Special Operations Chief 700 Special Operations Battalion 700

# **Lessons Learned**

# **Resource Tracking**

It was difficult for Command to track resources dispatched, responding, and arriving, due to initial limitations of MDC connectivity and the spread out incident scene and priorities. This lead to Command "polling" for available resources on 7-Charlie so that assignments could be made. As the incident stabilized, units from the task force were instructed to report to the cul-de-sac and stage at the command post for an assignment.

Unit and resource tracking must begin from the initial point of dispatch and maintained as response order changes and units are added or replaced. All command officers must strive to track these changes via a tactical worksheet or similar medium as the electronic support tools may become of limited use.

Technology limitations, the slowdown of MDC connectivity during major incidents must be addressed by ECC section staff with the support of responsible support agencies. This might change with the transition to new CAD.

# **EMS: Provider and Transport Capacity**

As the initial dispatch was for a small plane crash, two (2) ambulances and one (1) medic unit were alerted. With the upgrade to a large plane crash, Battalion Chief 705 requested the addition of mass casualty incident resources, bringing Medical Ambulance Bus 722 and Medical Care Support Unit 722 with Paramedic Engine 722's crew. The result was still three (3) transport units and the medical ambulance bus. As Command began preparing for 10 to 12 patients, insufficient resources were available. The initial EMS units' crews geared up and like on a house fire/box alarm the crews brought cots with EMS gear to Side Alpha. This resulted in lack of EMS crews ready to triage/treat/transport.

Additionally, outside of Fire Station 22's personnel, no additional manpower units were assigned to EMS to establish, build out, and operate the separate elements of mass casualty incident EMS. When upgraded to a large plane crash, ECC should have re-balanced the call and added one (1) medic unit and one (1) additional ambulance.

An additional step that could have assisted in ensuring the proper resources were assigned to EMS would have been to request an EMS Task Force along with the units from Fire Station 22. This would have brought five (5) transport units, two (2) manpower units, and one

Advanced Life Support (ALS) resource considering that one EMS duty officer was already on the event along with multiple command officers.

When EMS transport units are requested for an MCI, adequate manpower units need to be included in the request or diverted from non-life-safety responsibilities on the initial incident scene.

# **Command Platform and Post Functionality**

As outlined earlier with Command, a team of three certified chief officers assembled in the first 10 to 15 minutes to form the initial Command Team. This team transitioned from the cab of Paramedic Engine 728 to the Battalion 703 command platform. The team then expanded to include liaison functions operating in the Battalion 705 command platform. Command Post 727 arrived and positioned on Snouffer School Road behind Field Comm One (the County Police command bus).

Command developed a transition plan from the Battalion 703 command platform to Command Post 727 that was intended to be seamless. This did not go as planned. Upon arrival at Command Post 727, the Command Team found other FRS personnel utilizing the space. Additionally, the mobile radios in the front section of Command Post 727 were without power and Command was asked to operate utilizing portables.

The Command Team rapidly abandoned Command Post 727 and moved to Field Comm One. Once in the police command post, the Command Team was able to assemble in the middle command area in a seating arrangement that supported group dialog and planning with the needed telecomm and administrative support. The location of the fire rescue incident commander in the police command bus was confusing for some personnel.

If a Command Post is going to move from one location to another, the change must be decisive, quick, and communicated to all personnel several times on all talk groups.

# **Expanded Command & General Staff Positions**

As the incident stabilized and planning was initiated for future operational periods, the Incident Commander transitioned control of operational resources to an Operations Section. As this occurred, staff chiefs had arrived and were performing duties associated with Planning and Logistics Sections. This transition to formal NIMS Section designations was confusing for some within the Command Team and many personnel operating on the scene.

Units and personnel operating in divisions or groups that once reported to Command then fell under the Operations Section and report to "Operations" via radio transmissions. This transition was not clearly understood or implemented.

Large, lengthy, and complex incidents will frequently require the expansion of the command structure and formal establishment of some or all of the "General Staff" positions (Operations, Planning, Logistics, and Finance/Admin). Although these incidents are infrequent, all personnel, particularly officers, must be familiar with NIMS concepts and command structure. Incident Commanders must make clear announcements of these changes and repeat them across all talkgroups.

#### Conclusion

This tragic incident and the death of three (3) people on the ground and three (3) in the house can be considered as a number of significant incidents occurring simultaneously in very close proximity to each other. There was a significant structure fire presenting with heavy fire conditions with three (3) occupants unaccounted for adjacent to a burning aircraft sitting in the driveway of the house next door. Additionally there were two (2) adjacent structures with structural damage that had to be searched and occupants relocated to safety while a flammable liquid spill and run off was managed.

By breaking the incident down into manageable segments and assigning sufficient resources, the men and women of MCFRS were able to quickly stabilize the entire scene. This required all personnel calling upon basic training evolutions and skills in order to combine building blocks into large task and objectives.

Each and every day personnel report to duty or standby; they must be ready to respond to any possible emergency. My sincere appreciation to the personnel on this incident and the actions taken. To the line officers and chief officers — please take the opportunity to review this incident and to learn from the actions of those on the incident. We must constantly learn and seek out new information to better prepare ourselves for the unknown.