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# Montgomery County Fire and Rescue Service Post Incident Analysis

## Townhouse Fire



**10237 Arizona Circle  
Bethesda, Maryland  
June 14, 2009**

**Incident #09-0061341  
21:31 Hours**

**Submitted by Battalion Chief Mike Close**

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### **Executive Summary**

At 2131 hours on Sunday, June 14, 2009, units from the 2<sup>nd</sup> and 3<sup>rd</sup> Battalions were dispatched for a townhouse fire at 10237 Arizona Circle in Bethesda. While enroute, Montgomery (PSCC) announced fire in the living room, possibly one trapped in the townhouse. The first arriving engine company (E726) advised of a two story townhouse with smoke showing on Side Alpha, advised for a unit to take the two/out, and they were advancing an attack line to the front door and established Command in the attack mode. Other units began arriving and reported heavy fire showing from the first floor on Side Charlie.

While preparing to advance the attack line, the officer was advised by an occupant at the front door, who had self-evacuated, that there were two people still inside the townhouse. The officer declared an "emergency" to Montgomery and advised that there were two people trapped.

EMS702 arrived on scene and assumed Command from E726 and began to coordinate and build out the incident and requested a Task Force then upgraded to a Second Alarm. Two alarms were required due to the reports of persons trapped, exposure potential, and the volume of fire. BC702 arrived and assumed Command in the EMS vehicle parked on the Alpha/Delta corner approximately 100' from the fire building.

There were two civilian (occupants) casualties and one fire fighter casualty. The civilians perished and a fire fighter received a moderate electric shock. The fire fighter was transported to MedStar and remained for one day then released.

While fire suppression operations were well executed, water supply and search and rescue operations warrant review. Other factors such as water supply will be addressed as well. With two civilian deaths and a fire fighter injury, it is important to review strategic and tactical decisions and any safety issues that could maximize the opportunity for survival of occupants and minimize the chance of injury or death to fire/rescue personnel.

**Structure/Site Layout**

- The structure is a two story townhouse with a basement and constructed in the mid 1970's.
- No exterior entrance to the basement
- Side walls (Bravo and Delta) constructed of cinder block and ran the height/length of the building.
- Square footage of approximately 1500 feet.
- Second unit in from the Delta end.



(Side Charlie)

- Complex has adequate vehicle access from two directions.
- No fire hydrants in the complex.
- Fire hydrants are located approximately seven hundred feet from Side Alpha of the structure and one hundred feet away from Side Charlie.



## Communications

- PSCC reported the possibility of one trapped. This information was broadcast several times during various stages of dispatch; on 7 Alpha during the second vocal, on 7 Alpha during the RID dispatch, and additional information to E726 on 7 Charlie advising “they were on the phone with someone on the second floor that could not get out.” E726 acknowledged the message.
- Fire ground talk groups were utilized effectively and were adequate for the incident. The Second Alarm units were assigned to 7 Delta and remained there until contacted by Command.
- Radio communications were hampered by some crackling noise interference. This affected the EMS 702 mobile radio and several portable

radios. We overcame this with face-to-face updates and using a “runner” as needed (7 Oscar was utilized which helped somewhat).

After looking into the issue, Communications personnel advised the area has good coverage and have no definitive reason for the issue.

### **Incident Scene Operations**

- E726, the first due engine company, announce they were laying a supply line from Democracy Boulevard and Westlake Drive, arrived on Side Alpha, and reported heavy smoke showing from the first floor on Side Alpha. An attack line was advanced to the front door by E726 Right. Prior to entry, E726 advised Montgomery they had a report of two people trapped and announced a two/out. E726 established Command.
- E720, the second due engine company, supplied E726’s supply line and the crew advanced an back up line to the first floor and assisted E726.
- AT751, the first due aerial, positioned in front of the fire building and assisted crews on the first floor and placed ladders on Side Alpha.
- EMS702 arrived on scene, assumed Command from E726, and requested a Second Alarm. BC702 arrived on scene and, after a briefing, assumed Command from EMS702. Divisions 1, 2, Staging, and Safety were established and assigned.
- The Incident Action Plan, while not formally communicated via the radio, was to rescue occupants, control the fire, and stabilize the incident.
- E710, the third due engine company, dropped a supply line at Democracy Boulevard and Arizona Circle and positioned to the rear of AT751. Crews advanced an attack line through Side Charlie then to the second floor.
- T710, the second due aerial, arrived on scene, and positioned on Side Charlie with a report of heavy fire showing from the first floor. T710 cut an eight foot wide access hole in a ten foot high privacy fence on Side Charlie. This access provided an opening directly behind the fire building and proved very beneficial moving personnel and equipment. T710 then assisted crews on the second floor and placed ladders on Side Charlie.
- Engine 723, the fourth due engine, set up the RIC on Side Alpha. E723’s officer became the RIG Supervisor upon arrival of the RID units. The RIG

- Supervisor reported smoke/fire conditions to Command throughout the incident.
- RS741 arrived on scene and assisted with the primary search and utility control.
  - E733, the fifth due engine company, was assigned to assist E710 advance their attack line on Side Charlie to the second floor. The driver attempted to find an alternate route into the complex but found a parked car blocking the access. The car was towed some time later. Hearing the water supply issues, the driver went to assist E720's driver.
  - Safety provided Command with frequent updates on fire/smoke conditions in the fire building and exposures.
  - Command was advised of a victim on the first floor and an adult female victim in a bedroom on the second floor. A face-to-face briefing was conducted with E726 and Command confirming that both victims were Priority 4; both victims were left where they were found.
  - After checking Exposure Bravo and Delta, the fire was declared under control. Overhaul was performed well enough to confirm the fire was out, but not performed to the extent that fire investigation would be compromised.
  - Exposures Bravo and Delta were checked several times throughout the incident and were not affected by fire or smoke damage.
  - A thorough overhaul was performed after FEI personnel advised it was okay to do so.
  - Rehab, assigned to A751, was established in front of 12251 Arizona Circle with AR716 and CT705 located in the Rehab area.
  - The bulk of the fire, which was on the first floor, was extinguished within a few minutes of arrival. Heavy fire conditions had consumed the rear of the first floor in a make-shift sleeping area where one of the victims was discovered. Heavy smoke and high heat conditions had traveled to the second floor via the interior stairwell. Heavy fire conditions on the first floor vented from Side Charlie with exterior extension to the second floor. Other than water damage, the basement was intact with no fire or smoke damage.

### **Accountability**

- Personnel Accountability Tags (PAT) were collected at sorted at the Command Post.
- A Personnel Accountability Report (PAR) was accomplished by polling the established Divisions/Groups for units assigned to them. A PAR was completed once since the IDLH was cleared within thirty minutes.

### **Staging**

- Second alarm units were staged on Westlake Drive at Democracy Boulevard and assigned to 7 Delta.
- Media were directed to gather at the gas station located at Democracy Boulevard and Westlake Drive.

### **Support**

- PEPCO arrived on scene and pulled the meter after consultation with Command.
- Car 10 from the Montgomery County Police reported to the Command Post and coordinated traffic and crowd control.
- Red Cross was not requested as the occupants of the Bravo and Delta exposures were allowed to reoccupy their residences. The third occupant of the fire building was taken care of by family members.
- Command Post 727 was requested due to the anticipated length of the fire investigation.

### **Life Safety Systems**

- Smoke detectors were present and activated when E726 arrived on scene.
- No sprinkler or other fire suppression system present.

### **Fire Cause and Origin Investigation**

FEI arrived on the scene and began the investigation. The FEI Office concluded that the fire was caused by dropped or discarded smoking material

in the make-shift bedroom on the first floor. Damage was estimated at \$500,000 to the structure and \$200,000 to the contents.

### **Lessons Learned**

#### Search and Rescue:

When a known rescue exists, everyone must adhere to strict radio discipline and operate in a "Rescue Mode". Rescue Mode is the time when we should be willing to take a high degree of risk to save a life (unless signs incompatible with life are present) and perform an aggressive search.

- An unreasonable amount of time elapsed to perform a primary search of the entire structure and locate the victims. This was despite repeated reports from Montgomery and an on-scene occupant confirming that two residents were trapped. Prior to entry, E726 announced a two/out with several transmissions by other units acknowledging they would take the two/out. Again, unacceptable given a report of people trapped and the unnecessary use of radio air time; radio air time is at a premium when operating in a Rescue Mode.
- With repeated reports of people trapped, the first two engines and first due aerial remained on the first floor where they discovered a victim. Not until the third engine company (E710) arrived did anyone check the second floor or find the other victim. Crews found the victim on the second floor seventeen minutes into the incident.
- The crew of RS741 performed a Primary Search but initially failed to locate the victim on the second floor. The bedroom was mistaken for a hallway closet and was not adequately searched.

#### Water Supply:

Water supply is one of the most basic, yet critical, components of our mission. Failure to adequately supply water can lead to unnecessary injury or death and increased property loss.

Water supply issues on this incident nearly caused the evacuation of the fire building and used valuable radio time in the height of the Rescue Mode. Sharing this experience will hopefully assist in avoiding such dangerous and needless actions in the future.

- E726 dropped a supply line at the intersection of Democracy Boulevard and Westlake Drive. E720, the second due engine, acknowledged the message. However, the supply line was not secured around the hydrant

and was dragged to the intersection of Democracy Boulevard and Arizona Circle; E726 was not aware this had happened.

- E710 dropped a supply line at Democracy Boulevard and Arizona Circle (same location where E726's supply line came to rest). E723, the fourth due engine company, acknowledged the message.
- E720 arrived at Democracy Boulevard and Westlake Drive and did not see E726's supply line as indicated. After a moment of surveying the scene, the observed E726's supply line at the Arizona Circle entrance.
- While completing the reverse lay back to the hydrant at Democracy Boulevard and Westlake Drive, personnel from E710 pulled their supply line to E720 and told the driver to supply E710 as well.
- E720's driver called Command and advised he was unable to supply all of the lines he had. Command assigned E723, who laid to E706 (first due engine company on the Second Alarm), who supplied E720 with additional water.
- E726 called for water three times. After the third time, E726 advised Command that we would have to evacuate the building due to a lack of water. At that moment, E720 advised E726 that water was on the way.
- Nine minutes and twenty seconds elapsed before E726 received water from E720. For an attack pumper, with confirmed persons trapped and a heavy volume of fire, to wait this period of time for water is simply unacceptable in an urban setting.

Unit positioning was good for the most part. The position of the third due engine company (E710) contributed, in part, to the water supply problems. With a second access point (different than E726's) to the complex and sufficient fire hydrants on Westlake Drive, positioning on Side Charlie would have been most desirable. The second access point off of Westlake Drive would have been a better alternate than accessing the complex off of Democracy Boulevard. E723 should have completed the water supply no matter what position/access E710 decided upon.

#### Attack Line Deployment:

While E726 deployed the initial attack line to the first floor where the first occupant was reported to be located, E720 provided a backup attack line and

remained on the first floor instead of communicating with E726 and advancing to the second floor to search for the other victim.

E710 deployed an attack line through side Charlie and advanced through the burned out room where one of the victims was located. Although conventional tactics call for no more than two attack lines through one opening, there are always exceptions as dictated by the situation. The stairway was located several feet inside the front entrance and would have allowed for a more rapid deployment to the second floor. Another alternative would have been to enter through a second story window. Crews could have performed Vent, Enter, Search (VES) which would have required coordination with interior crews and Command.

*Note: all attack lines deployed were 1 $\frac{3}{4}$ ".*

Communications:

While PSCC announced several times on various talkgroups that there were reports of persons trapped, E726 acknowledged a message by PSCC while simultaneously providing water supply instructions. It was unclear if E726 received and/or understood the information regarding people trapped.

When provided with information or an assignment via the radio, it makes for good practice to repeat the information or assignment to confirm the message. This is very important when critical information is being provided.

While not conventional with reports of people trapped, Command, initially established by E726, called for a unit to take the Two/Out. E720 advised they would have the Two/Out but failed to assume that position or notify Command that the assignment was not completed.

If given an assignment by Command, we must ensure that assignment is carried out. Besides operational issues, these types of actions have an impact on the accuracy of the Accountability function by Command.

Command:

As indicated in Incident Scene Operations, the Incident Action Plan (IAP), while not formally communicated via the radio, was to rescue occupants, control the fire, and stabilize the incident.

The IAP needs to be communicated to all units on the scene to ensure everyone is aware of the priorities and mode of operation. Early in the incident, Command needs to drive the incident and set the tone. This could have been accomplished by redirecting units to ensure all floors were searched as quickly as possible.

**Comments**

The first arriving crews had several options at their disposal and chose the SOP option. With the deployment of the first arriving crews on the first floor, and no units to the second floor, life safety did not appear to be the priority or it was poorly demonstrated and communicated.

While SOP's (guidelines) were adhered to, we need to instill in our personnel that, at times, we have to deviate from SOP as circumstances dictate action which may not be prescribed in a SOP. This is not intended to grant freelancing but allows for deviation as warranted (a similar recommendation was made by the Leisure World Incident Review Panel; see Action Item #10 in the Review Panel's Report).

However, a culture has emerged in which "checking the box" and "being heard on the radio doing the correct thing, procedurally", has taken priority far too often in lieu of actions dictated by the incident or situation. Personnel on units, personnel in command, or policy makers are not to be singled out. A culture, good or bad, emerges from the synergy of everyone in an organization.

SOP's are adequate for the vast majority of incidents. Training, support, criticism (good or bad, objective and accurate) and confidence (which can be developed from the collective of the aforementioned) will assist personnel in choosing the most suitable option for uncomfortable, rare, and unrecognizable incidents and situations. However, recognizing actions that are "different" are not always "wrong" will lend credibility to any review or criticism.

**Units on Incident**

<b>Engines</b>	<b>Special Services</b>	<b>EMS &amp; Support Units</b>	<b>C/O *</b>	<b>FM</b>
E726	AT751	A751	BC702	FM2 *
E720	T710	M741	BC703	FM3 *
E710	AT703	M723	BC704	FM4 *
E723	RS741	EMS702	C741D	FM26
E733	RS703	AR716	U100	FM27
E706	AT723	CT705	DC700	FM43
E750	T706	CT733		FM51
E730		CP727		FM56
E705		SA700		FM59
				FM67



(First Alarm Apparatus Positioning)