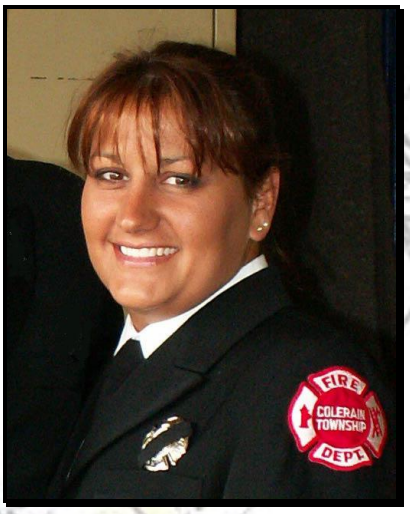
Colerain Township Department of
Fire and Emergency Medical Services

Line of Duty Death
Fact Finding Committee
Preliminary Report

June 26, 2008



Captain Robin M. Broxterman
April 16, 1970 – April 4, 2008

Firefighter Brian W. Schira
October 15, 1978 – April 4, 2008

SQUIRRELSNEST LANE LINE OF DUTY DEATH FACT FINDING COMMITTEE PRELIMINARY REPORT

June 26, 2008

The information contained within this document is a product of the Squirrelsnest Lane Line of Duty Death (LODD) Fact Finding Committee. It should be emphasized that this document is, as indicated in the title, a *Preliminary Report*. The focus of this committee is to identify the facts pertaining to the line of duty deaths of Captain Robin M. Broxterman and Firefighter Brian W. Schira, and to recommend measures that could prevent the risks of similar events within the Colerain Township Department of Fire & Emergency Medical Services (Colerain Twp. Fire & EMS) and the fire service profession. The information contained in this document is the compilation of interviews conducted in conjunction with the National Institute of Occupational Safety and Health (NIOSH) on Monday, April 21 through Wednesday, April 23, 2008, as well as the investigative efforts of committee personnel. The contents of this document relative to this incident are factual and verifiable as agreed upon by all personnel of the committee. This document is the preliminary findings and is only relative to the time line of events of the structure fire incident at 5708 Squirrelsnest Lane on Friday, April 4, 2008.

A second more comprehensive document will be produced by various sub-committees within the fact finding committee. These sub-committees will solicit and welcome all contributions from all Colerain Fire & EMS personnel. This comprehensive document will examine all general operating guidelines, standard operating procedures, training and experience levels of personnel, equipment and technology and many other factors that may be relevant to the deaths of Captain Robin M. Broxterman and Firefighter Brian W. Schira, and the injuries sustained by the other firefighting personnel. This document will also address the factors to possibly prevent the death or injury to firefighters in the future. It is anticipated that the comprehensive document could take up to 18-months to complete.

Respectfully Submitted,

The Squirrelsnest LODD Fact Finding Committee

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[1] International Association of Firefighters Local 3915 Representative

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BACKGROUND

On Friday, April 4, 2008, Captain Robin Broxterman, 37-years-old, a 17-year veteran career firefighter and paramedic, and Firefighter Brian Schira, 29-years-old, a six-month probationary, part-time firefighter and Emergency Medical Technician with Colerain Fire & EMS died after the floor they were operating on collapsed at a residential structure fire. At approximately 06:11:23, the Hamilton County Communications Center (HCCC) received notification from the American District Telegraph (ADT) Alarm Company reporting an automatic fire alarm activation from the first floor smoke detector and basement carbon monoxide detector at 5708 Squirrelsnest Lane (LN). An automatic fire alarm response complement of two engine companies (Engines 102 & 109), one ladder company (Ladder 25), and the Battalion Chief (District 25) were dispatched to investigate at 06:12:45. At 06:13:43, a second notification was received from the female homeowner reporting a fire in the basement of the structure. At 06:20:43, a third notification by means of a cellular phone from the female homeowner to HCCC routed through the City of Cincinnati dispatch center was received. At 06:22:41, the initial response complement was then upgraded to a structure fire response complement to include one additional engine company (Engine 25), one rescue company (Rescue 26), and one squad unit (Squad 25). Engine 102 (E102), with assigned four personnel (one Captain, one Fire Apparatus Operator [FAO], and two firefighters) arrived on the scene at approximately 06:23:45 reporting moderate smoke showing and established *Squirrelsnest Command*. Verification was made by the E102's FAO through *face-to-face* communication with the male homeowner that all occupants were out of the structure, which was then relayed to Captain (Capt.) Broxterman. District 25 arrived at the scene at 06:26:18, and assumed *Command* from Capt. Broxterman. At 06:26:29, Capt. Broxterman, Firefighter (Ffr.) Schira and E102's Ffr. 2 deployed a 1¾-inch pre-connected hose line through the front main entrance toward the rear of the structure. The fire was determined to be located in the basement of the structure. At 06:27:35, Capt. Broxterman reported, "E102 making entry into the basement, heavy smoke". At 06:34:20, Engine 25 (E25), the designated Rapid Assistance Team (RAT), having just completed their 360-degree size-up around the structure encountered E102's Ffr. 2 in the front the yard of the structure, whom reported that he had lost contact with his crew.

At 06:35:10, the Incident Commander identified a potential *Mayday* operation, which indicates a life threatening situation to a firefighter. RAT25 was deployed at 06:36:30. An official Mayday operation was declared at 06:37:23, and an immediate request was made at 06:37:30 to the HCCC for a second alarm complement of firefighting resources. At 06:41:43, RAT25 entered the basement from the rear of the structure. At 07:00:12, E26's personnel entered through the front main entrance of the structure and into the basement by means of the interior stairway. It was noted that during the search efforts, no audible signals from either victim's Personal Alert Safety System devices were heard. Both firefighters were located in the basement. Capt. Broxterman was located at 07:08:05, and Ffr. Schira was located at 07:29:28. Both firefighters were buried under collapsed structural components and contents. Capt. Broxterman and Ffr. Schira were declared deceased at the scene as a result of their injuries.

Building Construction

The structure at 5708 Squirrelsnest LN (Figure 1) was an approximate 2,046-square-foot[2] (main two floors), two-story, single-family home located in the Squirrelsnest Subdivision in the Dunlap area of the township. The structure was constructed in 1991, in a conventional style; it was of traditional wood frame and brick veneer construction, a gable roof with composition shingles, and a poured foundation with a finished walkout basement. The main level (first-floor) flooring system was comprised of 2-inch by 10-inch wood joist constructed 16-inches on center with ¾-inch oriented strand board as the sub-floor. The structure was heated and cooled by means of natural gas and electricity.

Figure 1: Front (alpha side) photo of 5708 Squirrelsnest LN.

Weather Conditions

The weather conditions provided light rain, and an approximate temperature of 58-degrees Fahrenheit, and a measured, sustained wind speed of approximately nine-miles per hour (mph) from the south southwest with wind gusts up to approximately 17-mph[3].

Fire Origin and Cause

According to the Ohio State Fire Marshal's Office, the origin and cause of the incident was classified as accidental, with the official cause listed as an electrical short in a fan that

[2] Retrieved from the Hamilton County Auditor's Website: http://www.hamiltoncountyauditor.org/realestate/rover30.asp
[3] Retrieved on April 16, 2008 from the Weather Underground Website: http://wunderground.com/history/airport/KHAO/2008/4/4/DailyHistory.htm

originated in the basement near a converted cedar wood lined closet used to cultivate orchids (Figure 2).

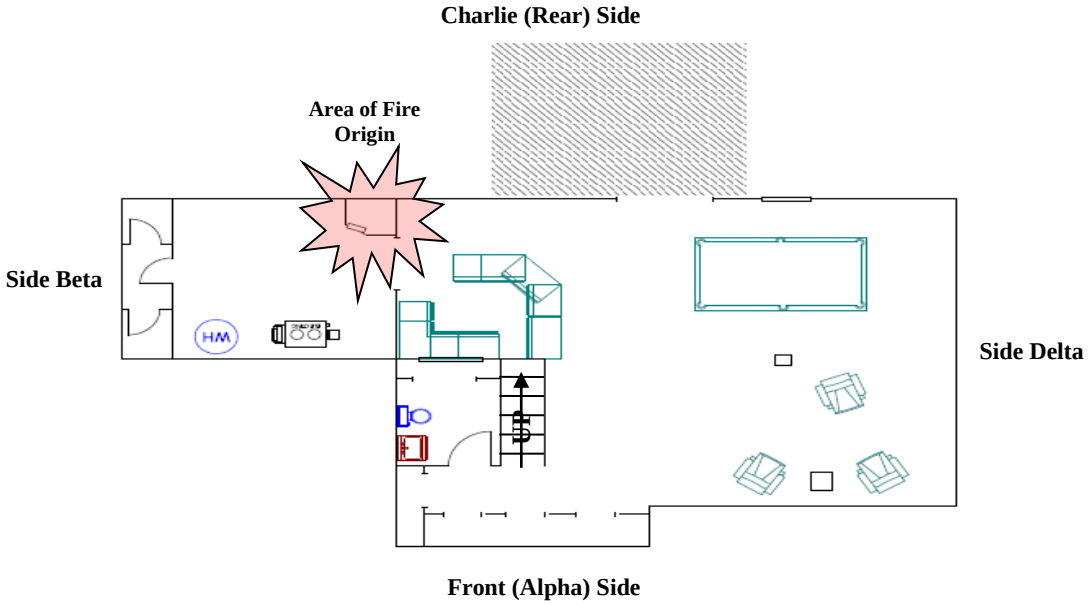

Figure 2: Structure's basement layout indicating fire area of origin. (Ohio State Fire Marshal's Office)

Deceased Firefighter's Activities Prior to Incident

Capt. Robin Broxterman

Capt. Broxterman commanded the personnel assigned to E102 and was the station officer on Unit One at Fire Station #102 located at 11474 Colerain Avenue. As a career firefighter, Capt. Broxterman was assigned an on-duty 24-hour shift and off-duty 48-hour schedule. The following are the on-duty activities of Capt. Broxterman during her last shift, April 3, 2008, prior to her arrival at the fire incident at 5708 Squirrelsnest LN on April 4, 2008.

Capt. Broxterman reported for duty and began her shift at 07:00:00 on Thursday, April 3, 2008. For most of the day, Capt. Broxterman conducted her daily routine (e.g., basic oversight of station, apparatus inspections and inventories, housework, briefings). Capt. Broxterman responded to an emergency medical incident at 14:47:19 that resulted in the engine company personnel assisting personnel assigned to Squad 25 and Advanced Life Support 25 with preparing the patient for transportation to a medical facility. Capt. Broxterman utilized personal time-off from 17:30:00 until 22:30:00 to provide emergency medical technician instruction at another local fire department. There were no incident responses for E102 that interrupted her sleep period during the night of April 3. At the time the alarm was received on the morning of April 4, Capt. Broxterman was conducting her physical conditioning routine.

Ffr. Brian Schira

Ffr. Schira was assigned to E102 on a rotational basis. As a part-time firefighter, Ffr. Schira was assigned an on-duty 12-hour shift and off-duty 60-hour schedule. The following are the on-duty activities of Ffr. Schira during his last shift, April 4, 2008, prior to his arrival at the fire incident at 5708 Squirrelsnest LN.

Ffr. Schira reported for duty and began his shift at 06:00:00 on Friday, April 4, 2008. The activities of Ffr. Schira prior to receipt of the alarm are unclear at the time of this document. It is assumed that Ffr. Schira was in the process or had conducted his normal preparatory routine of readying his personal protective equipment (PPE) and communications equipment including the placement of his *accountability name tag* on E102's *passport*. Passports are updated at the beginning of each duty shift and placed on the apparatus dashboard until they are used at an emergency incident scene.

TIME LINE OF OPERATIONS

The following time line of operations during the firefighting and rescue effort provides the reader with a brief description of significant occurrences throughout the incident. Following each time stamp, the radio channel that a message was transmitted or received is identified in brackets (e.g., Fire Department West [FD. West], Fire Ground 2 [FG 2], etc.). A more descriptive time line will be included in the forthcoming comprehensive document.

- **06:11:23** – First notification to the HCCC from ADT Alarm Company reporting an automatic alarm activation from the main floor smoke detector and basement carbon monoxide detector for 5708 Squirrelsnest LN.
- **06:12:45 [FD West]** – E102, Engine 109 (E109), Ladder 25 (L25) and District 25 (D25) are dispatched to investigate the automatic fire alarm activation at 5708 Squirrelsnest LN. They are assigned "Fire Ground Channel Two" (FG 2).
- **06:13:43** – HCCC receives a phone call from the female homeowner stating, "We have a fire at our house." "In the basement."
- **06:13:49 [FD West]** – E102 advises HCCC they're enroute to the scene.
- **06:20:43 –** HCCC receives a second phone call from the female homeowner by means of cellular phone reporting a structure fire. This call was transferred from the City of Cincinnati Dispatch Center.
- **06:21:44 [FD West]** – HCCC advises all units of, "a working structure fire".
- **06:22:41 FD West]** – Engine 25 (E25), Rescue 26 (R26), Squad 25 (S25), dispatched to 5708 Squirrelsnest LN for a fire alarm that is now, "a working structure fire". They are assigned "Fire Ground Channel Two".

- **06:23:45 [FD West]** – E102 on scene. Reports moderate smoke showing, and establishes Squirrelsnest Command.
- **06:25:42 [FD West]** – HCCC advises, "Received an additional call stating that the fire was in the basement of the residence, … of Squirrelsnest LN".
- **06:26:18 [FD West]** – D25 on-scene, and assumes Command of the incident.
- **06:26:29 [FG2]** – E102's Capt. Broxterman transmits, "E102 is advancing into the structure at this time. Stand by."
- **06:26:36 [FG 2]** – E102's Capt. Broxterman transmits, "… , we need water".
- **06:26:46 [FG 2]** – L25's Officer in Charge (OIC) transmits, "We do have a working fire".
- **06:26:51 [FD West]** – Command requests a Colerain staff notification.
- **06:27:21 [FG 2]** – Car 2508 on-scene. Assigned to the rear of the structure as the *rear sector* officer.
- **06:27:35 [FG 2]** – E102's Capt. Broxterman transmits, "E102 making entry in the basement, heavy smoke". Last verbal contact with Capt. Broxterman.
- **06:29:03 [FG 2]** – E102's Ffr. 2 transmits, "we need water".
- **06:29:09** – E102's FAO charges 1¾-inch pre-connected hose line deployed by Capt. Broxterman, Ffr. Schira and E102's Ffr. 2.
- **06:30:20 [FG 2]** – E109's OIC advises the incident commander, "… contact 102, have them pull out of this first-floor, redeploy to the back. It's easy access. Conditions are changing at the front door".
- **06:30:40 [FG 2]** – E25 on-scene as RAT25.
- **06:32:27 [FD West]** – R26 on-scene.
- **06:33:11 [FG 2]** – First of two radio transmissions (open microphone) from Ffr. Schira's radio.
- **06:33:19 [FG 2]** – Second radio transmission (indiscernible) from Ffr. Schira's radio.
- **06:33:28 [FG 2]** – Command transmits, "Unit calling, repeat".
- **06:34:20** – E102's Ffr. 2 exits structure, and reports he's lost contact with his crew.
- **06:34:26 [FD West]** – S25 on-scene.
- **06:35:10** – Incident Commander considers Mayday operation after several unsuccessful attempts to contact E102.
- **06:35:35 [FD West]** – Engine 26 (E26) notifies HCCC, that their responding to the Squirrelsnest fire incident.
- **06:36:30 [FG 2]** – RAT25 activated by Command.

- **06:37:23 [FG 2]** – Command officially declares a Mayday operation.
- **06:37:30 [FD West]** – Command requests a second alarm complement for firefighting and rescue resources.
- **06:38:30 [FD West]** – Engine 103 (E103), Engine 28 (E28), Fairfield Rescue, Ladder 42 (L42), Ross Engine 11 are dispatched as the second alarm complement.
- **06:40:30 [FG 2]** – Car 2501 on-scene.
- **06:41:27 [FD West]** – "Fire Ground Channel 11" (FG 11) is assigned for firefighting operations. FG 2 is maintained for Mayday operations.
- **06:41:36 [FD West]** – Additional request for Colerain staff notification requested using the words *Mayday Operation*.
- **06:41:43 [FG 2]** – RAT25 transmits, "RAT 25 for Command, be advised we're making entry into the basement".
- **06:41:49 [FD West]** – Command requests two additional EMS units.
- **06:43:59 [FG 11]** – Car 2506 on-scene and is assigned accountability.
- **06:44:00 [FG 11]** – It's estimated that at this time Car 2501 assumes Command of the incident. District 25 assigned oversight of Mayday operations on FG 2.
- **06:44:54 [FD West]** – Squad 225 and Squad 26 are dispatched to Squirrelsnest LN.
- **06:45:35 [FD West]** – E26 on-scene.
- **06:45:51 [FG 2] –** 1¾-inch pre-connected hose line one found in basement unattended.
- **06:49:00 [FD West]** – L42 and E103 on-scene.
- **06:49:59 [FG 11]** – Car 2512 and Car 2514 on-scene. Car 2514 is assigned front sector.
- **06:50:43 [FG 11]** – Car 4202 on-scene.
- **06:52:35 [FG 11] –** *Accountability Sector* established in front of fire structure.
- **06:53:26 [FD West]** – E28 on-scene.
- **06:57:24 [FG 11]** – S225 on-scene.
- **07:00:12 [FG 11] –** E26's personnel enters the structure through the front main entrance door and into the basement by means of the interior stairway.
- **07:02:03 [FG 2] –** RAT25's personnel exits structure by means of the basement exterior door.
- **07:06:41 [FG 11]** – Command announces a change in firefighting strategy from *offensive* to *defensive*.
- **07:07:53 [FG 11]** – Rear sector officer discusses with Command a *marginal* strategy due to E26's personnel in the basement checking under debris from floor collapse for missing firefighters.

- **07:08:05 [FG 11]** – Capt. Broxterman's body is located (Figure 3).
- **07:29:28 [FG 11]** – Ffr. Schira's body is located (Figure 3).

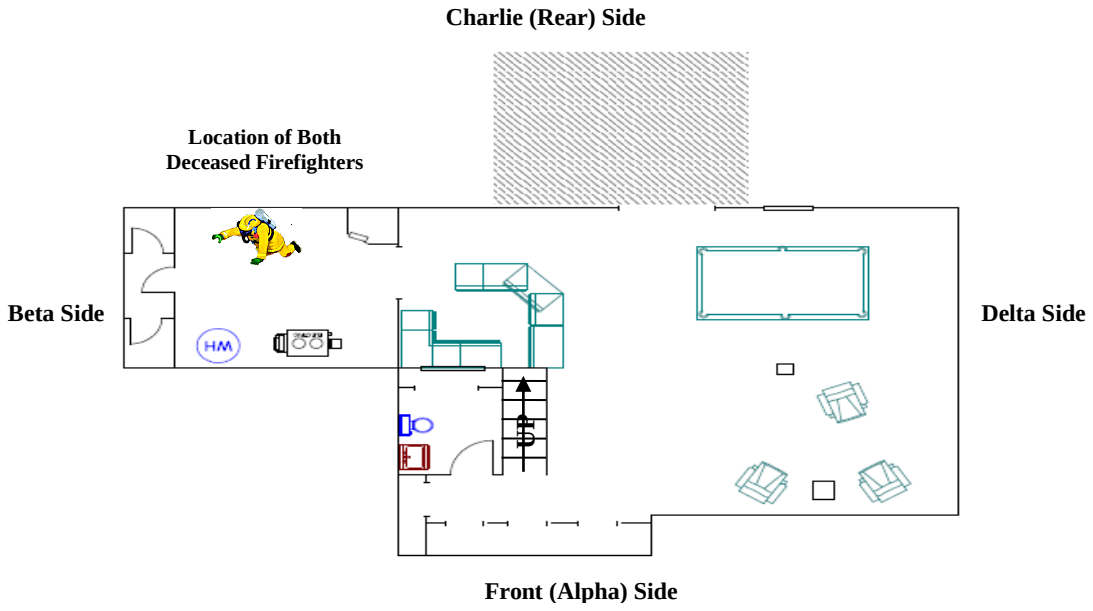

Figure 3: Structure's basement layout indicating location where both deceased firefighters were found. (Ohio State Fire Marshal's Office)

- **07:42:59 [FG 11]** – Mayday operations terminated by Command.

During the time period between 06:30:20 and 06:34:20, it is the belief of the committee that one or more catastrophic events occurred within the structure including failure of the flooring system near the *Beta/Charlie* corner of the structure's main floor (Figures 4-6). The photo in Figure 6 was taken from the main level kitchen area near the top of the stairway from the basement looking towards the Beta/Charlie corner.

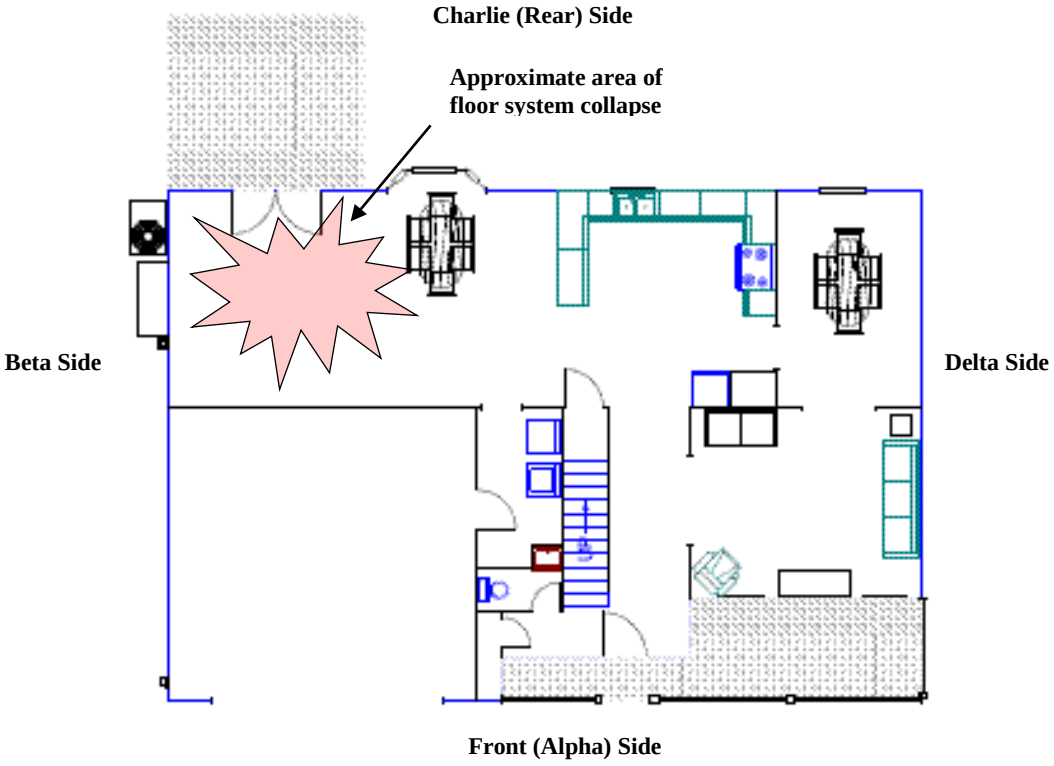

Figure 4: Structure's main floor layout indicating approximate area of flooring system collapse. (Ohio State Fire Marshal's Office)

Figure 5: Interior photo of the collapsed area and flooring system. (Colerain Fire & EMS)

Figure6: Expanded interior photo of the collapsed area and flooring system. (Colerain Fire & EMS)

INCIDENT STABILIZATION ACTIVITIES

The following summaries have been compiled from statements completed by firefighting and command personnel.

Hamilton County Communications Center

On the morning of April 4th, 2008, an automatic fire alarm activation was received by a Customer Monitoring Center of ADT for the structure located at 5708 Squirrelsnest LN in Colerain Township, Ohio. An ADT representative called the alarm to the HCCC at 06:11:23, which subsequently dispatched the Colerain Fire & EMS. According to the Department's incident response policy, E102 responded to the scene Code 3 (lights and sirens) and E109, L25 and D25 responded Code 2 (with the flow of traffic).

At 06:13:43, the HCCC received a 911 call from the female homeowner by means of the home telephone indicating that there was a fire in the basement. During this call, a smoke detector could be heard sounding in the background. A second phone call from the female homeowner was placed by means of her cellular phone to the HCCC at 06:20:43. This phone call was routed through the City of Cincinnati dispatch center prior to being transferred to the HCCC. This second phone call advised of a working fire in the basement with all occupants evacuating. All Colerain Fire & EMS units were advised of the upgraded situation and the incident was re-dispatched as, "a working structure fire" at 06:22:21 as requested by E109's OIC.

Engine 102

E102 received the dispatch at 06:12:45 from HCCC. E102 acknowledged the detail and radioed enroute at 06:13:49. While traveling to the scene, Capt. Broxterman reviewed the map book for the approximate location of the structure and hydrants in the area. As E102 arrived in the area, E102 passed the driveway by approximately 740-feet. Capt. Broxterman reviewed the map book a second time and exited the apparatus to assist the driver in backing the apparatus as addressed in the Department's vehicle backing policies. Capt. Broxterman stopped the vehicle, re-entered the vehicle and reviewed the map book a third time. Capt. Broxterman then exited the vehicle a second time to continue backing procedures. As E102 arrived at the driveway, E109 appeared in the FAO's mirror. At that time, the incident was upgraded to a "working structure fire" by HCCC.

Capt. Broxterman re-entered the cab of E102 and was informed of the update by E109's OIC on FG2 and acknowledged the update. At that time, E102's Ffr. 2 dismounted the vehicle to *street-lay* the five-inch large diameter hose supply line. E102 took a position at the front of the structure after deploying approximately 500-feet of supply hose. Capt. Broxterman radioed "E102 on scene, moderate smoke showing, E102 will be Squirrelsnest Command" to all responding units on FD West at 06:23:45.

As E102 arrived in front of the structure, the FAO was instructed by Capt. Broxterman to interview the male homeowner for the location of the fire and any remaining occupants. Capt. Broxterman exited the vehicle and began to don PPE including self contained breathing apparatus (SCBA). While donning PPE, Capt. Broxterman was advised by the FAO that the fire was in the basement, which Capt. Broxterman acknowledged. Ffr. Schira exited the vehicle and pulled a 150-foot 1¾ -inch pre-connected hose line to the front main entrance door. E102's Ffr. 2 proceeded to walk from the street to the front of the structure along the driveway ensuring the placement of the five-inch supply line didn't impede access for subsequent arriving units.

Capt. Broxterman and Ffr. Schira proceeded to the front main entrance door of the structure, and at 06:26:29 transmitted to the FAO that they were making entry into the structure and requested water. This transmission was not heard by the FAO. During this time, the E102 FAO was completing the five-inch supply line connection into E102's pump utilizing the short section of supply line from the front bumper storage tray of the apparatus. E102's Ffr. 2 proceeded to the front of the structure and *kicked-out* any kinks in the hose line going into the structure then donned an SCBA and entered the structure.

At 06:27:35, Capt. Broxterman transmitted on FG2, "E102 making entry in the basement, heavy smoke." Between 06:28:22 and 06:28:45, there were four attempted transmissions from Capt. Broxterman's radio. At 06:29:03, E102's Ffr. 2 transmitted a request for water from E102. E102's FAO acknowledged this transmission and stated "…attack line one's getting water now" at 06:29:09. (During this time it is unclear as to the location and activities of E102 interior crew)

At 06:29:58, E109's FAO transmitted that the supply line had been connected to the hydrant and was charged.

Between 06:33:11 and 06:33:19, there were three radio events attributed to Ffr. Schira's radio.

Just prior to 06:34:20, E102's Ffr. 2 was observed exiting the structure and had a face-to-face conversation with the OIC of RAT25 advising that E102's Ffr. 2 had been separated from the rest of the interior crew of E102. RAT25's OIC relayed this information to Command, and subsequently a Mayday operation was begun by units on the scene.

Engine 109

E109 responded Code 2 according to Colerain Fire & EMS policy to the initial dispatch of an automatic fire alarm activation. The company responded with a crew of four personnel. While enroute, E109's OIC advised responding units on FG 2 that this address was a *long-lay* situation. Upon their arrival on Squirrelsnest, E109's OIC indicated that E102 was visible at the top of the driveway. At this time, HCCC advised units that according to a resident's phone call, the incident was now "a working structure fire". E109's OIC requested this information be re-dispatched by means of HCCC and then called E102's OIC (Capt. Broxterman) to confirm that she was aware that it was now a structure fire. Capt. Broxterman radioed, "Clear".

E109's OIC advised E109's FAO to drive past the driveway, turn around in the next available driveway, and then proceed to the hydrant at 5712 Squirrelsnest LN. As E109 came to a stop at the hydrant, E109's FAO was instructed to complete the hydrant connection with E102's supply line and E109's OIC instructed E109's Ffr.1 to follow E102's supply line down the driveway to further ensure that it was out of the way of other responding units. E109's OIC and Ffr. 2 began assembling their equipment prior to advancing to the structure. At this time, L25 and D25 arrived on the scene and proceeded down the driveway.

E109's OIC performed a face-to-face with Command to discuss further size-up of the structure, and advised that E109's FAO was busy with water supply and to assign accountability to another unit. E109's crew proceeded to the front of the structure performed a 360-degree assessment proceeding in a clockwise manner from the front of the structure. E109's OIC observed heavy fire from the rear of the structure through the basement exterior door and the adjacent window (Figure 7). Upon returning to the front of the structure, E109's OIC instructed E 109's Ffr.1 and Ffr. 2 to pull a second 1¾-inch pre-connected hose line from E102 to the rear of the structure.

E109's FAO charged the hydrant and supplied E102 with water at 06:29:58. E109's FAO then proceeded down the driveway to join the remainder of E109's crew at the rear of the structure.

E109's OIC advised L25's OIC face-to-face to have E102 interior crew pull out and re-deploy to the rear of the structure. At 06:30:20, E109's OIC radioed Command of changing fire and smoke conditions, and to have E102's crew re-deploy to the rear of the structure for easier access to the basement. Command acknowledged the radio transmission.

Figure 7: Rear elevations from the Beta /Charlie corner showing the basement exterior door and window. (Colerain Fire & EMS)

E109's crew advanced to the rear of the structure and noticed that the fire coming out of the basement exterior door and window was extending upward on the exterior running along the soffit line. E109's OIC sent E109's Ffr.1 to E102's FAO to request that the second 1¾-inch pre-connected hose line be charged. E109's crew knocked-down the exterior fire in the rear and held position under the supervision of the rear sector officer. While doing so, E109's personnel were instructed not to direct their fire stream into the structure through the open doors or windows.

After RAT25's crew was activated by Command at 06:37:23, E109's crew was met by RAT25's crew coming to the rear preparing to make entry into the basement. E109's crew provided support and fire control for RAT25's operations in the basement. After discovery of the downed firefighters, E109's crew assisted with recovery efforts and was then directed to the *Rehabilitation Sector* in the front of the structure.

Ladder 25

L25 responded Code 2 to 5708 Squirrelsnest LN for the initial dispatch of the automatic fire alarm activation. The company responded with a crew of four personnel. Upon receiving updated information from HCCC that the incident was now "a working structure fire", L25 upgraded their response to Code 3. L25 arrived on the scene at 06:25:23 and drove down the driveway positioning behind E102. As addressed in Colerain Fire & EMS policy, L25's four

person crew was divided into two teams. The *Interior Team* consisted of L25's OIC and Ffr.1. The *Exterior Team* consisted of L25's Aerial Truck Operator (ATO) and Ffr. 2.

L25 Interior Team Activities

L25's Interior Team was directed by Command to advance to the structure to perform a *primary search*. They approached the front main entrance door, assembled their PPE, hand tools and Thermal Imaging Camera (TIC). While they were preparing to make entry, E109's OIC advised all crews of changing fire conditions and advised E102's crew to re-deploy to the rear of the structure. L25's Interior Team attempted to make verbal contact with E102's crew, but was unable to contact them from the front porch or verify their location using the TIC. L25's Interior Team then proceeded to the rear of the structure to assess fire conditions. Upon returning to the front of the structure, the crew did not make entry due to deteriorating conditions. L25's OIC requested positive pressure ventilation (PPV) to be set up at the front main entrance door.

L25's Interior Team then assumed a position in the rear of the structure and came under the supervision of the rear sector officer.

L25 Exterior Team Activities

L25's Exterior Team proceeded towards the front of the structure with two PPV fans (one from E102 and one from L25). They positioned the fans in the front main entrance doorway, however did not start them until requested. After placement of the fans, L25's Exterior Team proceeded around to the rear of the structure and also fell under the supervision of the rear sector officer. At approximately 06:55:00, there were several requests by means of the radio for the natural gas to be shut-off. L25's Exterior Team radioed that the gas had already been shut-off. L25's Exterior Team remained in the rear of the structure for the remainder of operations.

Engine 25

E25's crew responded with a crew of four personnel as part of the alarm upgrade for a structure fire. While enroute to the scene, E25 was initially assigned accountability by Command. Upon arrival at the scene at 06:30:40, E25's crew proceeded to the front of the structure with necessary tools and RAT equipment. E25's FAO began the accountability process, however, upon hearing radio traffic concerning a possible Mayday, moved forward to join E25's crew. At 06:32:23, E25 was assigned to report to the rear sector by Command. Approximately one minute later, Command re-assigned E25 to assume RAT responsibilities. E25's crew was joined by E25's FAO and made a reconnaissance of structures' exterior four sides in a clockwise manner. After returning to the front yard, E25's OIC encountered E102's Ffr. 2, who reported losing contact with Capt. Broxterman and Ffr. Schira. At 06:34:30, E25's OIC notified Command that E102's crew had become separated and proceeded to set up for RAT operations. At 06:37:23, Command activated RAT25. At 06:41:43, RAT25 advised Command

they were entering the rear of the structure through the basement exterior door. R26's two person crew was also assigned to RAT25 at this time. Using a search line, RAT25's crew started a left-handed search pattern through the basement exterior door. Upon reaching the base of the stairway, the crew found a hose line that was free flowing water from a break in the outer-jacket of the hose. The crew then radioed to have the hose line shut down. This information was also relayed to the rear sector officer by means of face-to-face communications in the rear of the structure.

RAT25 was ordered out of the basement by the rear sector officer due to concerns of possible structural compromise from a sagging first-floor beam. RAT25 exited the structure. After further examination it was determined the beam, in fact was not sagging, then RAT25 re-entered the structure without their Ffr. 2 due to depleting his breathing air supply. They proceeded into the basement following the same search pattern back to the bottom of the stairs. As they proceeded to the top of the stairs, they encountered E26's crew where they exchanged information concerning structural conditions, fire conditions, and which areas had already been searched. At this time RAT25's crew gave E26's crew their TIC camera (E26's TIC had failed), and promptly exited back through the basement due to the crew being low on breathing air. RAT25's crew proceeded around to the front of the structure and was directed to the Rehabilitation Sector.

Rescue 26

At 06:24:25, R26 responded Code 3 with a crew of two personnel according to Colerain Fire & EMS policy when the alarm was upgraded to a structure fire. Upon arrival at the scene, the rescue apparatus operator extended the light tower and then the crew reported to Command's location for assignment. R26 was instructed to report to RAT25's OIC to augment their crew. R-26's crew (now part of RAT25) proceeded with the crew to the rear of structure, gave their accountability tags to the rear sector officer and entered the basement exterior door. A left-hand search pattern was conducted and RAT25 discovered a hose line at the bottom of the basement stairs. RAT25 then exited the basement on orders of the rear sector officer. R26's crew was then relieved of RAT duties and instructed to assist with deploying a hose line to the main level rear deck and support L25's crew with extinguishment efforts.

Once on the main level deck, R26's apparatus operator noted the main level floor of the structure had collapsed and notified the rear sector officer of the findings. Extinguishment efforts continued at the Beta/Charlie sides of the structure until radio traffic indicated one firefighter had been found. R26 and L25 crews were then instructed to help extricate and recover the second firefighter from the basement. R26 and L25 crews became low on breathing air and exited the structure. R26's crew assisted in moving a *stokes basket* to the front of the structure, and was then directed to the Rehabilitation Sector.

Engine 26

At 06:34:07, while in quarters, E26 contacted Command on FG2 and asked if they should respond to the incident. Command advised them to respond. E26 responded with a crew of four personnel Code 3 to the scene and arrived on scene at 06:45:35. E26's crew assembled in the front yard and upon receiving orders to search for E102's crew, proceeded through the front main entrance door, and followed the initial pre-connected hose line down the main hallway and into the kitchen. E26's crew encountered RAT25 at the top of the basement stairway and was briefed on structural and fire conditions and areas that had already been searched. A partial collapse of the main level flooring system was also discovered in the Beta/Charlie area by E26's crew. E26's crew proceeded to the basement. After a brief search Command ordered a shift to a defensive mode, signaling all interior crews to exit the structure due to safety concerns. E26's OIC requested permission from the rear sector officer to rapidly search the area underneath the collapsed area. With permission granted, E26 entered the area and began moving debris. E26's crew discovered pieces of PPE, which led them to the location of the first firefighter. They reported their findings to the rear sector officer and left the downed firefighter in place for investigational purposes while they exited the structure by means of the rear basement exterior door. E26's OIC had a face-to-face conversation with Car 2501 (Fire Chief) at the *Command Post* and after several minutes, E26 was instructed to re-enter the structure and recover the firefighter's body. While doing so, they found the second firefighter underneath the first firefighter. During the recovery of the first firefighter, members of E26 began to run low on breathing air and exited the structure. Upon exiting, E26's crew provided location directions to the relief crew that was entering to remove the second firefighter. E26 then reported to the Rehabilitation Sector.

District 25 (Battalion Chief Officer)

D25 responded to 5708 Squirrelsnest LN Code 2 according to Colerain Fire & EMS response policy. As the incident was upgraded to a structure fire, D25 upgraded the response to Code 3. Upon arrival at 06:26:18, D25 assumed a position behind L25, and then assumed Command.

Command received the original on-scene size-up from Capt. Broxterman and then additional information from L25's OIC that there was a "working fire" inside the structure. Command radioed that he was having a difficult time seeing the structure due to the positioning behind the ladder truck.

As the incident evolved, Command directed units in fire attack and scene support. After receiving an update from E109's OIC to have E102's crew redeploy to the rear of the structure, Command attempted to have E102 acknowledge the change in tactics at 06:30:20. Having received no response after repeated attempts, Command began to suspect that E102's crew was in trouble.

Command activated RAT25's crew at 06:36:30 and declared a Mayday situation at 06:37:23 on FG2 followed by a request for a second alarm and staff notification from HCCC. Command instructed all firefighting operations to change fire ground channels to FG11 in order to clear FG2 for Mayday operations.

Car 2501 arrived on scene and assumed *Operations Command* on FG11 so that D25 could concentrate on RAT operations. From this point, D25 continued to manage the Mayday operations on FG2 until the Mayday operation was terminated at 07:42:59.

Car 2508 (Division Chief Officer)

At 06:27:21, Car 2508 arrived on scene and reported to Command for assignment. Car 2508 was assigned as the rear sector officer and proceeded to the rear side of the structure. At 06:31:58, the rear sector officer reported fire showing out the rear windows. The rear sector officer conferred with E109's OIC and requested permission from Command to knock down exterior fires. The rear sector officer instructed the rear sector crew not to direct fire streams into structure. E109's crew proceeded to knock-down the exterior fire. No indication of interior fire suppression efforts were noted at any time.

Between 06:33:41 and 06:35:01, there were several radio transmissions between Command and the rear sector officer inquiring about the status and location of *Interior One* (E102). The rear sector officer radioed that there had not been any contact with the interior crew. Command acknowledged the traffic and instructed the rear sector officer to begin interior suppression and entry. RAT25 was activated by Command at 06:36:30.

From a position in the rear of the structure, the rear sector officer directed the initial RAT operations and suppression efforts. The rear sector officer observed a possible compromised structural beam, and ordered RAT25 out of the structure. The rear sector officer determined the structure was safe and RAT operations continued. The rear sector officer continued to keep a physical accounting of the rear sector suppression and RAT crews throughout the incident until accountability was formally established by Car 2506 (Division Chief Officer).

At approximately 07:05:00, E26's crew communicated with the rear sector officer and reported an area on the Beta/Charlie side of the structure's interior first-floor had collapsed into the basement. At 07:06:41, Command had called for defensive operations while E26's crew received permission from the rear sector officer to quickly check under the debris on side *Charlie*. At 07:08:42, the rear sector officer informed Command that E26 had found a downed firefighter.

The remnants of a helmet and SCBA were passed outside and placed on a table; the rear sector officer instructed that nothing was to be touched in an effort to preserve evidence. The rear sector officer continued to provide direction and oversight during the recovery efforts inside

the basement. The rear sector was re-assigned to units from Ross Township Fire Department after the recovery, and Car 2508 was directed to the Rehabilitation Sector.

POST-INCIDENT ACTIVITIES

In an effort to prevent serious injury and fatal firefighter incidents in the future, Colerain Fire & EMS has already initiated action with the following activities:

- Continued comprehensive review of structural firefighting tactical procedures – especially those involving basement fires;
- Enhanced support staff and command officer notification and response procedures;
- Supplemented first-alarm structure fire complement with an additional ladder company;
- Continued comprehensive review and modification to RAT response and operational procedures;
- Purchased additional thermal imaging cameras;
- Recommend the purchase of radio headsets for FAO personnel;
- Review of radio communication procedures;
- Research improved SCBA and portable radio interface technology;
- Review and expansion of General Operating Guidelines and Procedures Manual;
- Continued training in the department's Accountability System;
- Continued training in Incident Management and the Incident Command Simulator;
- Continued evaluation of personnel for Critical Incident Stress.

This is not an all-inclusive listing of activities. Additional items are expected to be identified in both the future comprehensive document and the NIOSH report.

CONCLUSION

The information contained within this document is only the first phase in a process of identifying and implementing measures that are intended to prevent the risks of similar events within Colerain Twp. Fire & EMS and the fire service profession. The final document scheduled for release in 2009 will introduce recommendations and provide a framework for strengthening firefighter safety and survival awareness within Colerain Township's Fire Department.

While we believe that this preliminary document and the future comprehensive document will be helpful to this fire department, it is the more global information drawn from our experience that will enable the fire service to implement safety measures that will benefit all firefighters.

The Department will never forget the ultimate sacrifice made by Captain Robin Broxterman and Firefighter Brain Schira in their service to the community. By sharing the knowledge gained from this very tragic and painful incident, the Department will ensure their sacrifice was not in vain and hope that other fire departments can avoid a similar tragedy.

TERMINOLOGY

This section is intended to assist the reader to understand terms used in describing aspects of firefighting and common to Colerain Fire & EMS.

Accountability Name Tag: a plastic, Velcro-backed tag with a firefighter's rank (if appropriate), last name and badge number.

Accountability System: the system that readily identifies both the location and function of all personnel operating at an incident scene.

Battalion Chief Officer: manages all activities of all personnel on an *assigned shift* in the Operations Bureau, including commanding and coordinating firefighting and rescue functions; duty assignment, supervision, and evaluation of personnel.

Defensive strategy: actions that are intended to control a fire by limiting its spread to a defined area, avoiding the commitment of personnel and equipment to dangerous areas.

Division Chief Officer: supervises, plans, and coordinates the activities and operations of an *assigned section*; coordinates assigned activities with other sections and divisions, outside agencies, and the general public.

Engine Company: the standard fire attack apparatus containing a water supply, attack and supply hose lines, pump, and related equipment; staffed by three to four firefighters.

Fire Apparatus Operator: a firefighter responsible for driving the engine to the scene of an incident and operation of the pumps on an engine, to provide sufficient water to the firefighters on the hose.

Ladder Company: the standard fire attack apparatus equipped with an aerial device, ground ladders, forcible entry tools, and related equipment; staffed by four to five firefighters.

Incident Commander: the fire department representative in overall command of an emergency incident.

Long-Lay: a driveway on an occupant’s property in Colerain Township that is 900-feet or greater from a fire hydrant or any other water source used for fire protection. In addition, a structure less than 900-feet that is not visible from the street is also considered a long-lay. The preplanning of long driveways providing firefighters with information regarding the number of engine companies that will be required to deploy enough supply hose to reach an incident address in case of a fire emergency.

Marginal strategy: sometimes referred to as transitional or rescue strategy focusing on saving of human life. Charged hose lines are advanced for the purpose of supporting rescue and protecting crews, not for fire extinguishment

Mayday: a term used only by firefighters who are lost, trapped or in a life threatening situation.

Offensive strategy: actions generally performed in the interior of involved structures that involve a direct attack on a fire to directly control and extinguish the fire.

Passport: a small plastic card that identifies the fire company designation. A strip of Velcro affixed to each passport allows individual nametags to be placed on each passport that reflects the individual crewmembers who are assigned or working on a particular fire company or unit that day.

Personal Alert Safety System: a personal safety device used primarily by firefighters entering a hazardous environment such as a burning building, which sounds a loud audible alert to notify others in the area that the firefighter is in distress.

Positive Pressure Ventilation: a method used to pressurize a fire structure during an interior attack to control smoke and heat ventilation at desired points.

Primary Search: a very early in any fire or hazardous environment search or rescue. This is a quick search of all compartments in a structure for victims.

Rapid Assistance Team (RAT): a minimum of three fully equipped firefighting personnel on-site, in a ready state, for the immediate rescue of lost, trapped or incapacitated firefighter(s).

Rescue Company: a special fire or rescue apparatus equipped with rescue tools and related equipment; staffed by two firefighters.

Sector: is a geographical area or function established and identified within the incident management system for operational purposes. A typical designation of sectors might include: a) rear sector, b) interior sector, c) roof sector, d) rehabilitation sector.

Squad Unit: the standard vehicle used for basic life support and treatment and transportation of the sick or injured.