

In-Station Training

TM 24-18 Commercial Fire-Auto Parts Store



Author

Chief Ed Hartin

Purpose

This 10-Minute Training is based on a commercial fire with multiple maydays (once declared and one not). Review East County Fire and Rescue <u>Standard Operating Guideline (SOG) 4.3.2 Rapid Intervention and Firefighter Rescue</u> (ECFR, 2024) prior to completing this 10-Minute Training.

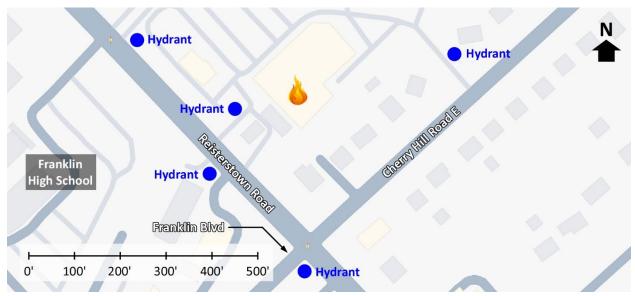
Learning Outcomes

Firefighters and officers perform an effective size-up, select an appropriate strategy, and implement tactics based on the strategic decision-making model. In addition, firefighters and officers recognize, communicate, and respond appropriately to fireground maydays.

Conducting the Drill

This incident involved a commercial fire at Advance Auto Parts, 11909 Reisterstown Road, Reisterstown, Maryland on July 18, 2023, at 21:37 (Baltimore County Fire Department (2024a, 2024b, CBS Baltimore, 2023). Review the map and photos (Figures 1-8) to gain an understanding of the area and building.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2024a). [Map, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/3TRSwS4.

Figure 2. Aerial/Preplan View



Note: Adapted from Google. (2024b). [Aerial view 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/4at9eMH. This aerial view was edited to approximate the original roof and location of the stairs on Side Charlie.

The closest hydrants are in the parking lot adjacent to the Alpha/Delta corner of the main fire occupancy and on the entrance to the shopping complex off Cherry Hill Road as shown in Figures 1 and 2.

Figure 3. Alpha/Delta Corner



Note: Adapted from Google. (2012a). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/4cpZhSb.

Figure 4. Side Alpha



Note: Adapted from Google. (2012b). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/4a6CSI7.

Figure 5. Alpha/Bravo Corner



Note: Adapted from Google. (2012c). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/3VuRHiY.

Figure 6. Side Bravo



Note: Adapted from Google. (2012d). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/3PyESQV.

Figure 7. Bravo/Charlie Corner



Note: Adapted from Google. (2012e). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/3PyESQV.

Figure 8. Charlie/Delta Corner



Note: Adapted from Google. (2012f). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. https://bit.ly/4cpZhSb.

The temperature is currently 81° F with no appreciable wind from the north (BCoFD, 2024b & Weather Underground, 2024). You have been dispatched to Advance Auto Parts, 11909 Reisterstown Road for a report of a commercial fire at 21:37. You are the company officer or AIC of the first arriving engine and have your company's typical staffing.

1. What critical factors would you consider when dispatched and during response and what conversations would you have with your crew while responding?

Due to multiple other calls being dispatched, you do not receive any update report or detail beyond a report of a commercial fire at Advance Auto Parts. You hear two command officers, three other engines, and an advanced life support ambulance with typical staffing for your agency go enroute. You will arrive from the northwest on Reisterstown Road. The second engine will arrive from the southeast on Reisterstown Road four minutes after you with the third engine arriving immediately after the second. The command officer will arrive shortly after the third engine. All other units dispatched on the first alarm will arrive after the command officer.

As you enter the commercial complex, you do not see any smoke from Sides Charlie or Delta. Watch the <u>simulation video</u> and examine Figure 9 illustrating conditions on arrival.

Figure 9. Conditions on Arrival on Side Alpha



Note: Adapted from Hartin, E. (2024) *Reisterstown Advance Auto Parts simulation* [Fire Studio 7 digital simulation]. Camas, WA: East County Fire and Rescue.

- 2. State your initial radio report (IRR) exactly as you would transmit it to dispatch.
- 3. What specific actions would you take (as the company officer) immediately upon arrival and exiting the apparatus and what task orders you would give your crew?

Looking through the windows to the Main Fire Occupancy you see that the building is smoke logged, but do not see any flames. Looking at Side Delta, you do not see any smoke coming from Side Delta or over the roof from Side Charlie. You do not see any evidence of smoke in or from the Bravo 1 Exposure.

- 4. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?
- 5. State your update report exactly as you would transmit it to dispatch.

| 6. | Engine 2 arrives and reports that they are Level 1 on Reisterstown Road. State the tactical assignment you would give them exactly as you would transmit it. |
|---|---|
| 7. | Engine 3 and reports that they are Level 1 on Reisterstown Road and Cherry Hill Road East. State the tactical assignment you would give them exactly as you would transmit it. |
| 8. | Based on the anticipated effectiveness of your tactical operations, state your conditions, actions, and needs (CAN) report that you would provide to the first arriving command officer as part of command transfer to IC #2. |
| Reflect on your strategic decision-making and responses to questions 1 through 8 before answering the next six questions. | |
| 9. | What was the problem? |
| 10. | What was getting in the way of achieving your tactical priorities? |
| 11. | Was there anything in this incident that could have hurt or killed you (right now)? |
| 12. | Was it reasonable to believe that the building was occupied? |
| 13. | Was there searchable space? |
| 14. | If you believed it was reasonable that the building was occupied and there was searchable space, what could you do about it? |
| | |

The next several questions are based on the following scenario. You are the company officer of Engine 1 and have transferred command to Chief 1, who is now serving as IC #2. A second alarm has been requested which adds an additional four engines and one ladder company and an additional chief officer to the incident assignment.

Engine 2 laid a supply line from the hydrant in the parking lot adjacent to the Alpha/Delta corner of the main fire occupancy into Engine 1 and was integrated with Engine 1, forming an attack team. Engine 3 is on-deck Side Alpha and Engine 1 has been tasked with stretching through Side Alpha for fire control and primary search.

As Engine 1 and Engine 2 stretch through Side Alpha, IC #2 assigns Engine 4 to lay into the parking lot on Side Charlie of the Bravo 1 Exposure and perform reconnaissance on Side Charlie. Medic 4 was integrated with Engine 4.

Note: The sequence of operations and tactical assignments are somewhat different than those used in the actual incident (based in part on resources and standard operating procedures or guidelines). However, the assignments in this 10-Minute Training place companies inside the main fire occupancy, on Side Charlie, and Side Alpha as actually occurred in this incident.

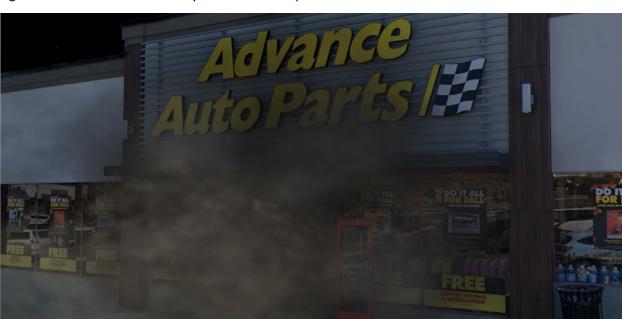


Figure 10. Conditions at the Entry Point on Side Alpha

Note: Adapted from Hartin, E. (2024) *Reisterstown Advance Auto Parts simulation* [Fire Studio 7 digital simulation]. Camas, WA: East County Fire and Rescue.



Figure 11. Conditions Encountered Inside the Main Fire Occupancy

Note: Adapted from Hartin, E. (2024) *Reisterstown Advance Auto Parts simulation* [Fire Studio 7 digital simulation]. Camas, WA: East County Fire and Rescue.

You have zero visibility and low temperature as you advance into the store. Even using a thermal imaging camera (TIC), you are unable to locate the fire and continue to advance deeper into the store. You maneuver to the right around the cash registers to access the rear of the store. Command asks you for a CAN and you report that you are approximately 100' in with low temperature and zero visibility, you can't find the fire, air status is just over ½, and you need a company to see if they can access the fire from Side Charlie.

While continuing to search for the fire, you are struck by falling suspended ceiling tiles and stock from a display, knocking you to the floor and separating you from the hoseline and other members of the attack team (Engine 1 and Engine 2). You are disoriented and do not receive a response when you call out to the other members of the attack team.

15. Identify the specific task level actions that you would take and state any communications you would initiate exactly as you would transmit them.

16. If the other members of the attack team (Engine 1 and Engine 2) did not hear the company officer of Engine 1 call for help, but did hear his or her mayday transmission, what action should they take? State any communications that they would have exactly as they should transmit them?

Additional Learning: May is mayday month! As such, there are multiple opportunities to extend the learning in this 10-Minute Training.

Important! Keep the following in mind as you engage with these additional learning activities.

- Firefighters and officers all want to do good work (no one wants to do a bad job, to be injured, or to die during incident operations.
- Firefighters and officers generally perform the way that they are trained and/or consistent with the (stated or unstated) expectations of their organization.
- There are many ways to go about the business of firefighting. Many are "right" and some are "wrong", but be careful not to assume that different is incorrect just because it is different.
- In any after action report or investigation or a serious injury or fatality there is always more to the story.
- The purpose of this additional learning is not to identify what others did "wrong", but to make sense of what happened and how this knowledge can improve our safety and effectiveness.

Complete 10-Minute Training 24-18a which is designed for IC #2 (the first arriving command officer). This training for IC #2 picks up this incident scenario just before the company officer of Engine 1 calls a mayday after becoming disoriented.

In 2003, San Antonio Fire Captain Willie Mora completed a study examining the problem of firefighter disorientation. This study identified several key concepts including definition of an enclosed structure, the disorientation sequence (common sequential factors leading to disorientation), and the concept of the "short interior attack" (using the access point closest to the fire). Over 20 years later, firefighters continue to be challenged by fires in enclosed structures with maydays resulting from disorientation. Read *U.S. Firefighter Disorientation Study* (Mora, 2003) which accompanies this 10-Minute Training and *Preventing Firefighter Disorientation In Large Enclosed Structures - Part* 1 (Mora, 2008).

Watch the Baltimore County Fire Department <u>After Action Report-Advance Auto Parts Fire-July 18, 2023</u>, (BCoFD, 2024a) and read the <u>After Action Review Report Commercial Building Fire with Mayday</u>.

After watching the Baltimore County Fire Department video and reading the after-action report, consider the following questions:

- As you examine this incident, think about attack positions, depth of penetration in enclosed buildings, and fire dynamics related to ventilation limited fires (particularly in large volume buildings), and the influence of the location of inlet and exhaust openings.
- How did "the disorientation sequence" (Mora, 2003, p. 5) apply to the initial mayday in this incident (Lieutenant on Truck 18) and the second (undeclared) mayday involving the Captain on Engine 19)? What steps could have been taken to 1) prevent the mayday or 2) resolve the mayday more guickly and safely than occurred in this incident?
- The firefighters and officers operating at this incident did not have access to preplan data such as the simple preplan provided in Figures 1 and 2. Some of the responding personnel were familiar with the store as they had worked in the area and had shopped there. Do you think that pre-incident information would have reduced the likelihood of a mayday during incident operations? Why or why not?
- Maydays are often the result of multiple contributing and causal factors. What do you think
 were the major factors that contributed to the two (one declared and one undeclared) maydays
 in this incident?

Discuss this incident and your lessons learned with the members of your crew. Work on mayday communications, individual and company survival skills, and develop proficiency in rapid intervention. Remember that an on-deck company's first and foremost responsibility is the tactical capability for rapid intervention.

References

- Baltimore County Fire Department (BCoFD). (2024a). *After action review report -- Advance Auto fire-July 18, 2023* [video]. Retrieved April 6, 2024, from https://bit.ly/3IS2U5Y.
- Baltimore County Fire Department (BCoFD). (2024b). *After action review report commercial building fire with mayday.* Retrieved April 6, 2024, from https://bit.ly/3TLYp1B.
- CBS Baltimore (2023). 19-year-old charged with setting massive fire to Reisterstown Advance Auto Parts. Retrieved April 6, 2024, from https://cbsn.ws/4aJPwMZ.
- East County Fire and Rescue (ECFR). (2024). *Standard operating guideline (SOG) 4.3.2 rapid intervention and firefighter rescue.* Retrieved April 12, 2025, from https://bit.ly/4jy8MBC.
- Google. (2012a). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/4cpZhSb.
- Google. (2012b). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/4a6CSI7.

- Google. (2012c). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/3VuRHiY.
- Google. (2012d). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/3PyESQV.
- Google. (2012e). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/3VqUj1x.
- Google. (2012f). [Street view, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/4cpZhSb.
- Google. (2024a). [Map, 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/3TRSwS4.
- Google. (2024b). [Aerial view 11909 Reisterstown Road, Reisterstown, MD]. Retrieved April 6, 2024, from https://bit.ly/4at9eMH.
- Hartin, E. (2024) *Reisterstown Advance Auto Parts simulation* [Fire Studio 7 digital simulation]. Camas, WA: East County Fire and Rescue.
- Hartin, E. (2024) *Reisterstown Advance Auto Parts simulation* [Fire Studio 7 digital simulation video]. https://bit.ly/4bp1Mmx.
- Mora, W. (2003). *U.S. firefighter disorientation study 1979-2001*. San Antonio, TX: San Antonio Fire Department.
- Mora, W. (2008) *Preventing firefighter disorientation in large enclosed structures-part 1.* Retrieved April 6, 2024, from https://bit.ly/49m4KXz.
- Weather Underground (2024). *Glen Burnie, MD weather history* [historical weather July 18, 2023]. Retrieved April 6, 2024, from https://bit.ly/3xnA4Yp.