



In-Station Training

TM 23-26 Violation of Expectations



Author

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Purpose

Experienced firefighters make effective decisions based on recognition of critical factors. For example, observation of flames from a single window and limited smoke from the remainder of a small house could be recognized as a room and contents fire. However, it is critical to be observant of conditions or changes in conditions that violate your expectations as this can indicate that all is not what it seems.

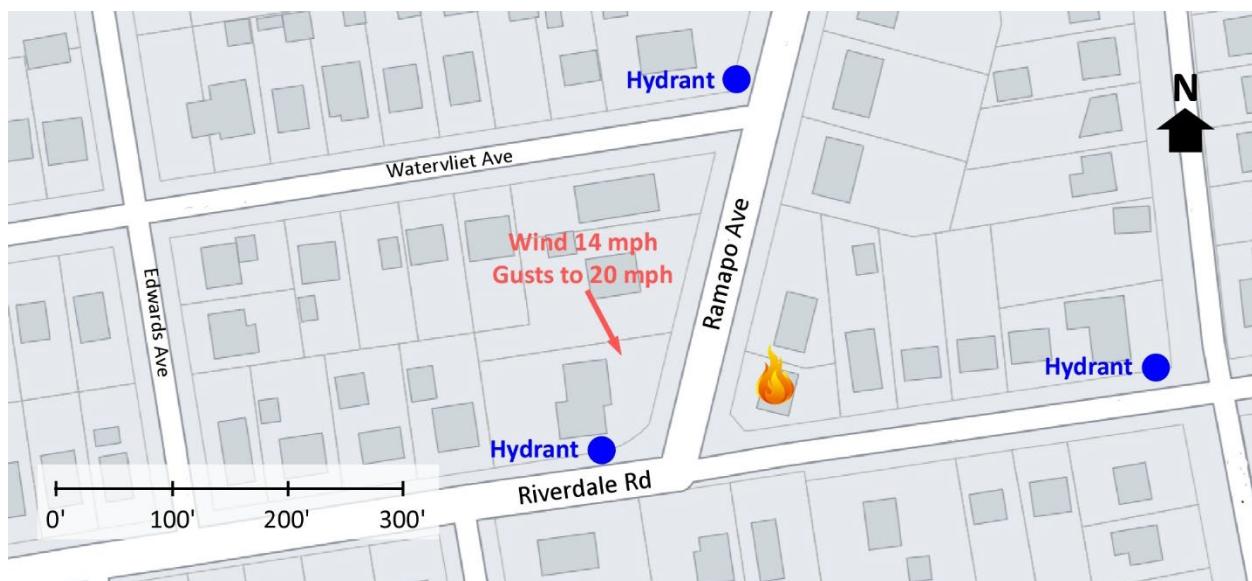
Learning Outcomes

Firefighters and officers perform an effective size-up; select an appropriate strategy, and implement tactics based on the strategic decision-making model.

Conducting the Drill

This incident involved a fire at 945 Ramapo Avenue, Pompton Lakes, New Jersey on January 14, 2023, at 02:04 (Dozgood Media, 2023; D'Angelo, 2023; Roman, 2023; Rosenthal, 2023, Myers & Janoski, 2023, & Pompton Lakes Volunteer Fire Department, 2023). Review the map and photos (Figures 1-6) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [map, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/45NEjsW>.

The closest hydrant is located to the west of the incident location at Riverdale Road and Ramapo Avenue and several other hydrants are in the area as illustrated in Figure 1.

Figure 2. Aerial View



Note: Adapted from Google. (2023b). [aerial view, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/3N9WrFh>.

Figure 3. Alpha/Bravo Corner



Note: Adapted from Google. (2018a). [street view, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/42yCNbi>.

Figure 4. Side Alpha



Note: Adapted from Google. (2018b). [street view, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/3NwOHi1>.

Figure 5. Alpha/Delta Corner



Note: Adapted from Google. (2018c). [street view, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/3NmDtME>.

Figure 6. Charlie/Delta Corner



Note: Adapted from Google. (2018d). [street view, 945 Ramapo Avenue, Pompton Lakes, NJ].

<https://bit.ly/3NpnttC>.

You have been dispatched to the area of Ramapo Avenue and Riverdale Road for a residential fire at 02:04. You are the company officer or AIC of the first arriving engine and have your company's typical staffing. The temperature is 37° F with wind from the north northwest at 14 mph with gusts to 20 mph (Weather Underground, 2023).

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

While responding you hear a command officer and another engine with typical staffing for your agency go enroute. Dispatch provides an update reporting smoke from a residence near the intersection of Ramapo Avenue and Riverdale Road. The second engine will arrive approximately three minutes after you. The command officer will arrive six minutes after the second engine. All other units dispatched on the first alarm will arrive after the command officer. You arrive from the north on Ramapo Avenue and observe the conditions illustrated in Figure 7 at 945 Ramapo Avenue.

Figure 7. Conditions on Arrival



Note: Adapted from Fire Studio 6.0 simulation, Google. (2018b). [street view, 945 Ramapo Avenue, Pompton Lakes, NJ]. <https://bit.ly/3NwOHi1>.

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?

You observe that the building is smoke logged with a small volume of smoke pushing at moderate velocity from Side Charlie and the roof gable on Side Delta.

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. State the tactical assignment you would give the next arriving engine exactly as you would transmit it.

The first company assigned to the interior encounters smoke down to the floor and moderate temperature. Using a thermal imager, the company officer of the first company assigned to the interior observes elevated temperature on a door leading to the basement and has the initial attack line stretched down the basement stairs to locate the fire.

Watch the first 00:30 of the [incident video](#) (Dozgood Media, 2023) which provides a view of changing conditions from the Charlie/Delta corner of the main fire occupancy before answering the next several questions.

If your company stretched the initial attack line into the building, answer Question 7. If you tasked the second arriving company to stretch the initial attack line into the building answer Question 8.

7. You (IC #1) and your firefighter(s) are on the initial attack line in the basement when the explosion occurs, knocking you to the floor with minor injuries. You still have water in your attack line. What directions will you provide your crew, what communication will you have with the on-deck company and dispatch?
8. Your (IC #1's) engine company has stretched a second attack line and is on-deck at the point of entry for the initial attack line. When the explosion occurs, you and any other members of your crew on the attack line are blown off your feet and away from the building by the blast, receiving thermal burns on exposed skin, and minor traumatic injuries. What directions will you provide your crew, what communication will you have with the company in the basement and dispatch?

9. After your initial actions following the explosion the command officer arrives, 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? The command officer may abbreviate the standard command transfer process, simply taking command. However, a mayday CAN will provide the command officer with critical information to address the needs of the company in (or working on egress from) the basement. Note: This CAN will differ based on the location of IC #1 (in the basement or on the exterior).

In this incident two firefighters and a lieutenant were in the basement on an attack line and two firefighters, and an assistant chief were stretching an attack line just inside the doorway on Side Charlie at the time of the explosion.

Fire officials said two firefighters, along with a lieutenant, were in the basement, and the lieutenant helped them out. Three other firefighters, they said, including an assistant fire chief, were on the first floor, with two pulling a line into the home. "It was the assistant chief and the two other guys who got blown out. (WCBS staff, 2023).

Examine Figures 8 and 9 illustrating the explosion sequence

Figure 8. Explosion Sequence 02:19:07



Note: Adapted from Dozgood Media. (2023). *House explodes with 6 firefighters inside caught on bodycam / NJ 2023* [video] <https://bit.ly/469eR1f>

Figure 9. Explosion Sequence 02:19:07



Note: Adapted from Dozgood Media. (2023). *House explodes with 6 firefighters inside caught on bodycam / NJ 2023* [video] <https://bit.ly/469eR1f>

Figure 10. Post Blast Fire Conditions on Side Alpha



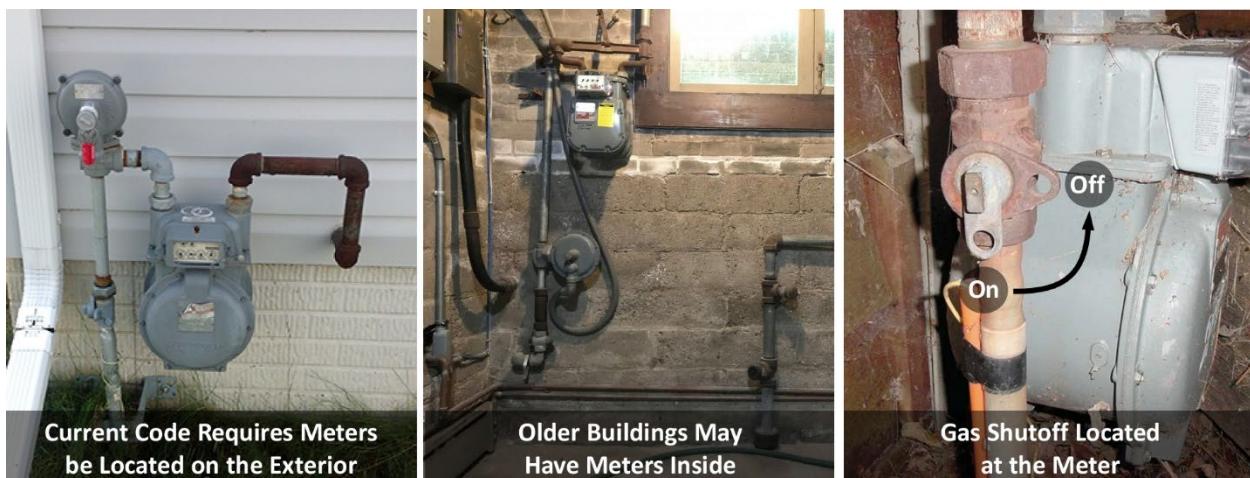
Note: Adapted from Demarco, J. (2023). *UPDATE: Firefighters Injured, Two Hospitalized In Pompton Lakes House Explosion.* <https://bit.ly/3Nhbi0q>.

10. What are possible scenarios that could result in an explosion such as occurred during this incident?

11. What visual or audible cues may provide an indication of the potential for each of the scenarios that you identified in Question 10?

Additional Learning: The house involved in this incident had natural gas service (Myers & Janoski, 2023). However, if you looked for a natural gas meter during your 360-degree reconnaissance, you did not see one (see Figures 3-6). How can that be? The house was built in the 1940s when code requirements for gas meter location were different (see Figure 11).

Figure 11. Natural Gas Meters



Note: Adapted from Cedar Falls Utilities (2023). *Maintain safe natural gas meter access.*

<https://bit.ly/43M2ir6>; & Sikora, S. (2022). *Getting it Wright: the gasman cometh.*

<https://bit.ly/3NeYHL7>;

A gas explosion is one possible scenario for explosion in this incident. However, a smoke explosion could result in a similar outcome. It is important to understand the difference between a smoke explosion and a backdraft. Read Chapters 6, 7, and 8 in [Enclosure Fires](#) (Bengtsson, 2001) for a good overview of the differences between backdraft and smoke explosion. If you really want to get your fire nerd on, read [Defining the Difference between Backdraft and Smoke Explosions](#) (Fleischmann & Chen, 2013).

The cause of this incident has not been publicly reported. Given what you have learned, what do you think are the possibilities and why? How can this information inform your fireground decision-making?

References

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