In-Station Training

TM 23-18 Routine Apartment Fire

Author

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Purpose

Recognition-primed decision-making is one model that can be used to describe how firefighters and fire officers make decisions on the fireground. One of the key elements in this model is recognizing the situation as familiar. Familiarity is comprised of relevant cues, plausible goals, expectancies, and potential actions (Klein, 1995). As firefighters and officers gain expertise, they begin to chunk information, to recognize familiar patterns, and address critical indicators while ignoring less important cues (Means, Salas, Crandall, & Jacobs, 1995). However, there is always potential for errors.

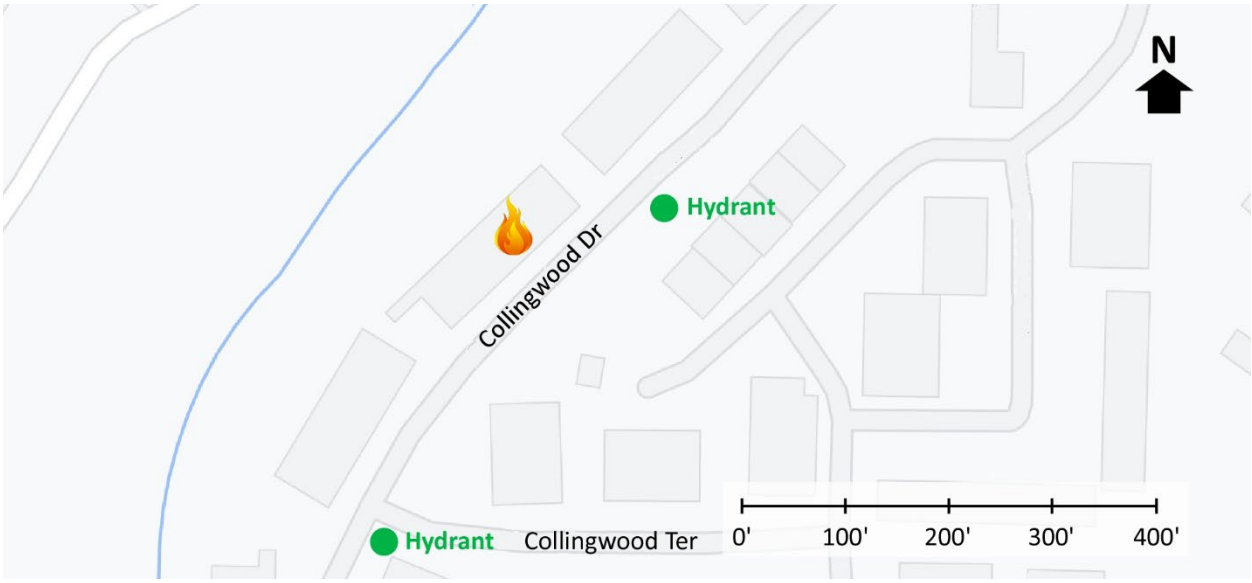
Learning Outcomes

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 an apartment fire at Stratford Ridge Apartments, 2560 Delk Road SE, Marietta, Georgia on February 9, 2022, at 05:25 (Floyd & Madrzykowski, 2023). Review the map and photos (Figures 1-4) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [map 2560 Delk Rd SE, Marietta, GA]. https://bit.ly/3MNfc2G.

The address on Delk Road SE is for the apartment complex (Collingwood Drive intersects with Delk Road to the north northeast of the incident location). The closest hydrant is approximately 100' before and another hydrant is located approximately 300' beyond the main fire occupancy in the direction of travel as illustrated in Figures 1 and 2 (S. Gray, personal communication, April 15, 2023).

Figure 2. Aerial View

Note: Adapted from Google. (2023b). [aerial view 2560 Delk Rd SE, Marietta, GA]. https://bit.ly/41f9OcU.

Figure 3. Side Alpha

Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox

Figure 4. Side Charlie

Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox

This building has two stories above grade with a crawlspace on Side Alpha and two stories with a lookout basement on Side Charlie (there are no basement units on Side Alpha).

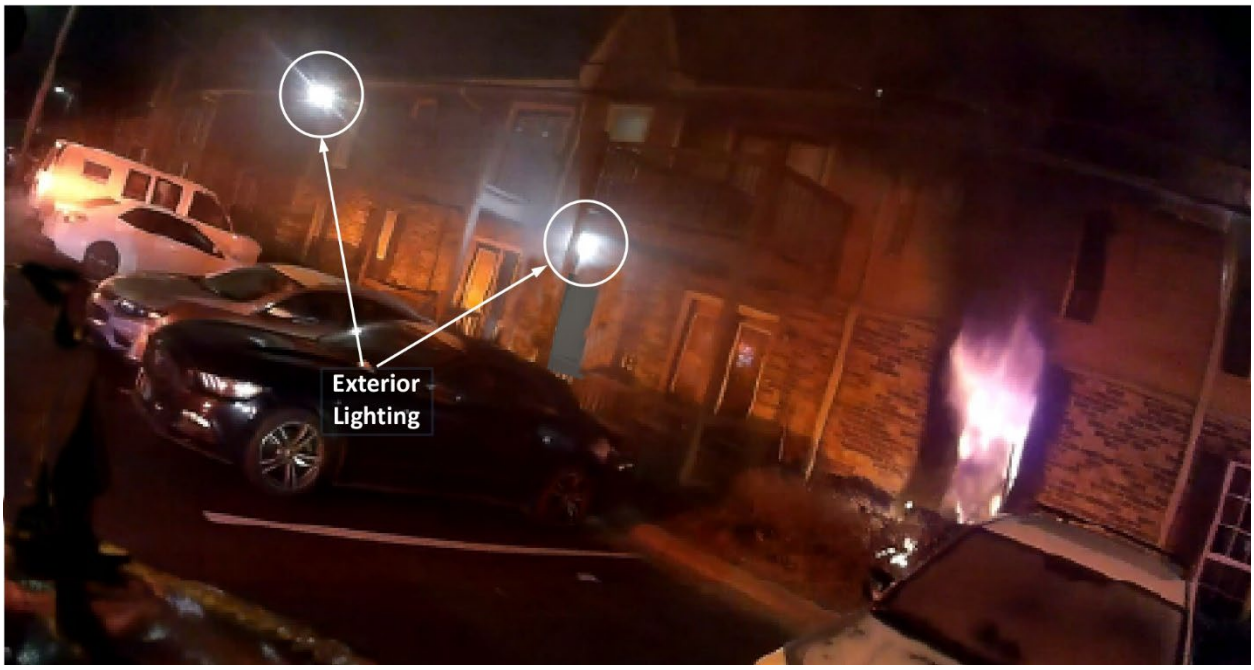
You have been dispatched to Stratford Ridge Apartments, 2560 Delk Road SE, Building E for an apartment fire. You are the company officer or AIC of the first arriving engine and have **a staffing level of three** (or as typical for your agency if greater than three). Temperature is 28° F with wind from zero to three mph from the south southwest (Floyd & Madrzykowski, 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 second engine with staffing typical for your agency. The second engine will arrive approximately two minutes after you. You are arriving from the northeast on Collingwood Drive. You hear a command officer go enroute and anticipate that they will five minutes after the second engine. All other resources dispatched on the first alarm will arrive after the command officer. Dispatch provides an update, reporting that the occupants of the apartment have evacuated and are reporting that a sofa is on fire in their apartment.

There is no pre-arrival video available for this incident. Examine Figure 5, illustrating conditions on arrival.

Figure 5. Conditions on Arrival



Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox. This video screen capture has been edited to remove initial tactical operations prior to entry.

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?

Access to the rear of that apartment complex is difficult (but not impossible) due to terrain. No smoke or flames are visible from Side Charlie. The occupants of the involved unit have evacuated, but no information is available regarding the occupants of adjacent or upper floor units.

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.

Answer the next several questions from the context that you (IC #1) and your company are engaged in interior fire control. Examine Figures 6-9 which are video screen capture from the nozzle firefighter's helmet cam.

Figure 6. Conditions on Side Alpha During Entry

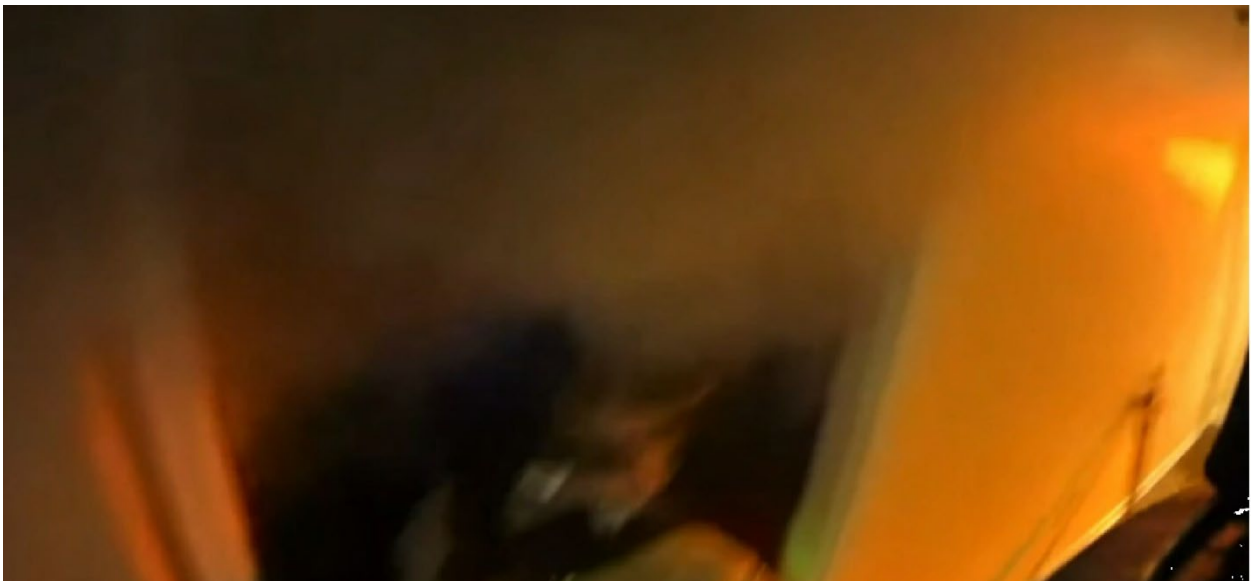
Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox.

7. What specific direction would you give the on-deck company and your nozzle firefighter prior to entering the building. Think specifically about the task level direction that you would provide.

Figure 7. Conditions in the Public Hallway/Common Stairwell on Entry

Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox.

Figure 8. Conditions at the Doorway to the Main Fire Occupancy



Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox.

Figure 9. Conditions in the Living Room (Looking Towards Side Alpha)

Note: Adapted from Floyd, J. & Madrzykowski, D. (2023). *Analysis of a near miss in a garden apartment fire – Georgia 2022.* https://bit.ly/3MIQnox.

8. What specific direction would you give your nozzle firefighter prior to entering the main fire occupancy. Think specifically about the task level direction that you would provide and how you would go about locating, confining, and controlling the fire.

Shortly after you make entry into the main fire occupancy, your nozzle firefighter becomes entangled in a child's bassinet. Visibility is extremely limited. The temperature is higher than you anticipated and increasing. Limited information is provided by your thermal imager (TI). You are unable to locate the fire by the time that the first arriving command officer initiates command transfer. The command officer identifies the position and function of initial arriving companies correctly and asks for a conditions, actions, and needs (CAN) report.

9. 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?

Additional Learning: Watch *Analysis of a Near Miss in a Garden Apartment Fire – Georgia 2022* and review the Underwriters Laboratories Fire Safety Research Institute (UL FSRI) Near Miss Report (Floyd & Madrzykowski, 2023). As you read this report, consider the following questions:

- Were the actions of the companies operating at this incident like or different than the incident action plan you implemented in this 10-Minute Training?
- What factors influenced your assessment of the incident's critical factors and decision-making?
- What impacted the difficulty locating the fire in this incident? If you encountered this situation, what action would you take to resolve this problem?
- What factors may have influenced IC #1's tactical and task level decisions in this incident?

Discuss the alternative tactics modeled by UL FSRI in analysis of this incident with the members of your company. How would you approach exterior water application and/or door control if presented with conditions like those encountered in this incident?

Watch *Door Control and Interior Operations* (Fire Engineering, 2020a). This video does a good job illustrating how the door control firefighter maintains door control and supports the crew advancing the attack line. However, there are a few differences between the LA County Fire Department (LACoFD) procedure illustrated in this video and CWIFR's door entry procedure. These differences are outlined below:

- LACoFD sets the nozzle pattern on a straight stream (and uses a straight stream consistently in the evolution). Selection of a straight stream or fog pattern based on conditions increases efficiency and effectiveness.
- LACoFD applies water to the door to check surface temperature and did not use a TI. Use of a TI anis a more appropriate method to check temperature.
- LACoFD applies a straight stream into the room as a "heat check". Research (Zevotek, Stakes, & Willi, 2018) and practical experience have shown that application of water at 150 gpm using a fog stream is ineffective as a temperature check as you will almost always get water return, even when temperatures are extremely high. A straight stream would be even less effective in assessing temperature. Use of a TI to scan high, middle, and low in the room provides a more effective temperature assessment.
- LACoFD applies a straight stream in a wall, ceiling, wall application to cool in advance of the line. This is effective, but use of long pulses of water fog should be more effective in this application (Van de Veire, 2016; Bonnier, 2017; & Van de Veire, 2018), particularly when advancing on a shielded fire.

Watch *Smoke Curtain Use* (Fire Engineering, 2020b) this short video does an excellent job illustrating how the door curtain can be used to control the flow path and limit air intake without requiring a firefighter to physically manage the door. This is extremely important in single company, two-in, one-out

operations as the apparatus operator has a multitude of tasks that require completion to support interior operations.

References

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