In-Station Training

TM 24-26 Apartment Fire

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Purpose

Arriving and operating at a fire when occupants are visible and in imminent danger is extremely stressful. There is tremendous moral pressure to act, and the clock is ticking. Stress is also increased when there are many vocal bystanders.

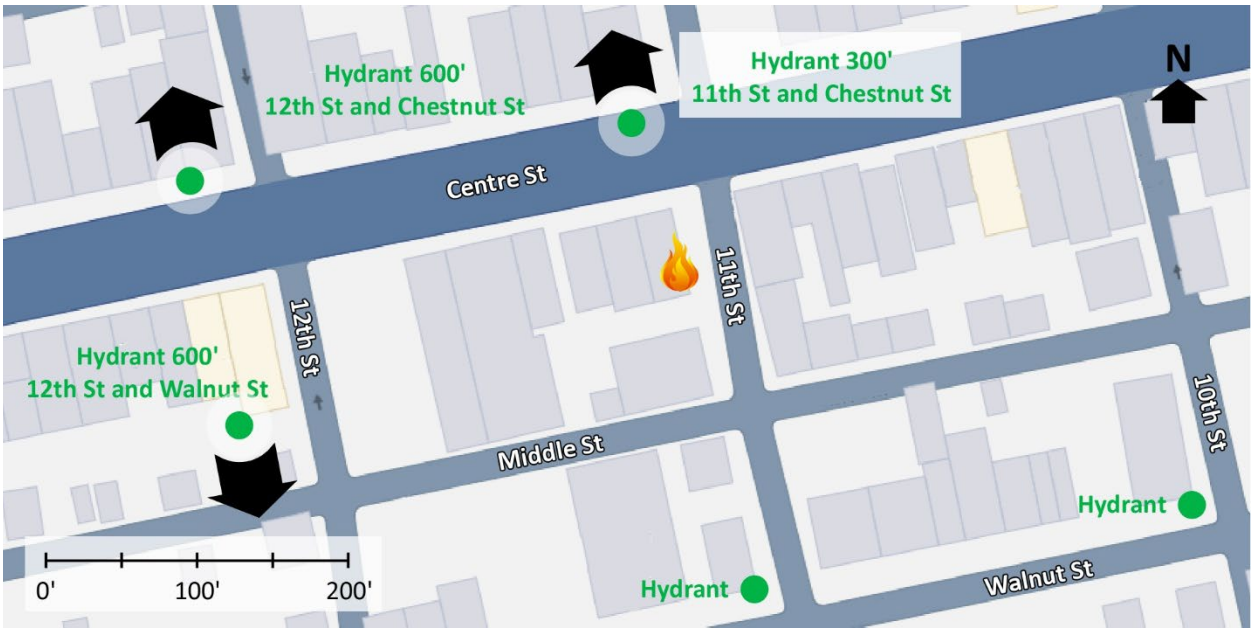
Learning Outcomes

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

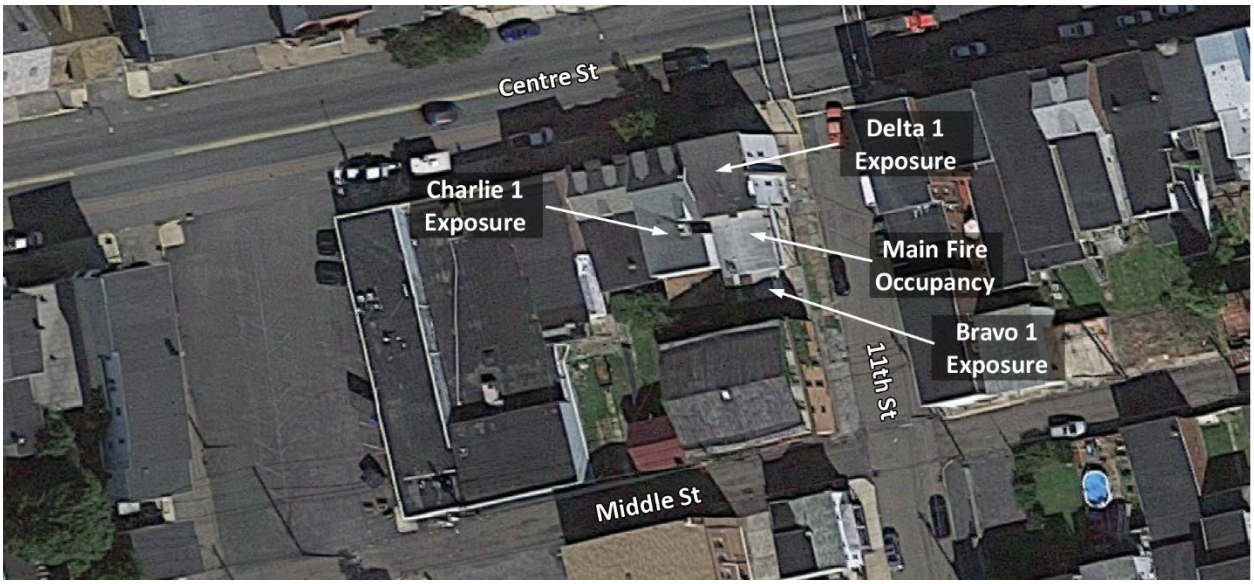
This incident involved an apartment fire at 1100 West Centre Street in Ashland, Pennsylvania on April 22, 2024, at 03:53 (Snook News, 2024 & 69 News, 2024). Review the map and photos (Figures 1-6) to gain an understanding of the area and building involved. The main fire occupancy faces 11th Street but is addressed off Centre Street (based on the attached Delta 1 Exposure).

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2024a). [Map, 1100 West Centre Street, Ashland, PA]. https://bit.ly/4dE1mue.

Figure 2. Aerial View



Note: Adapted from Google. (2024b). [Aerial view 1100 West Centre Street, Ashland, PA]. https://bit.ly/3QG05cw.

Hydrants are located to the north and south of the incident location on Walnut Street and Chestnut Street as illustrated in Figure 1.

Figure 3. Delta 1 Exposure (approaching on Centre Street)

Note: Adapted from Google. (2023a). [Street view 1100 West Centre Street, Ashland, PA]. https://bit.ly/3K3LyDs.

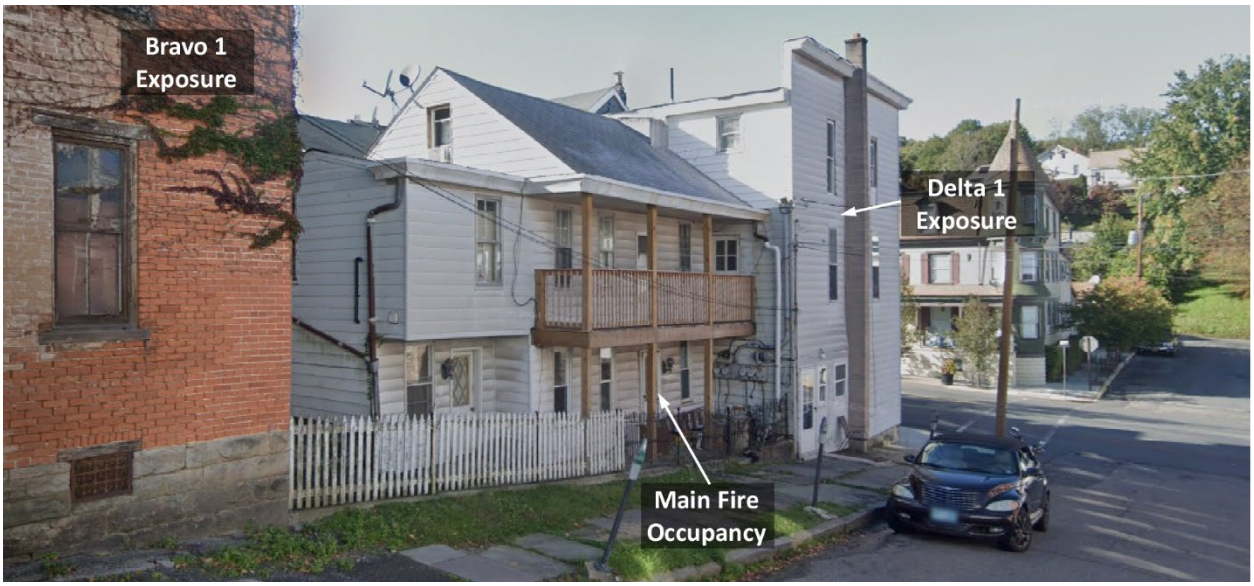
Figure 4. Alpha/Delta Corner (intersection of Centre and 11th Streets)

Note: Adapted from Google. (2023b). [Street view 1100 West Centre Street, Ashland, PA]. https://bit.ly/4bzijEE.

Figure 5. Side Alpha (11th Street)

Note: Adapted from Google. (2023c). [Street view 1100 West Centre Street, Ashland, PA]. https://bit.ly/3ykLU6d.

Figure 6. Alpha/Bravo Corner (11th Street)



Note: Adapted from Google. (2023d). [Street view 1100 West Centre Street, Ashland, PA]. https://bit.ly/44Kb9eo.

The temperature is currently 34° F with wind from the west at 8 mph (Weather Underground, 2024). You have been dispatched to 1100 West Centre Street for an apartment fire. 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?

You hear a command officer, three other engines, and an advanced life support ambulance with typical staffing for your agency go enroute. You will arrive from the west on Centre Street. The second engine will arrive from the east on Walnut Street three minutes after you. The command officer will arrive shortly after the second engine. All other units dispatched on the first alarm will arrive after the command officer.

Watch the first 00:33 of the incident video (Snook News, 2024) and examine Figure 7 illustrating conditions on arrival.

Figure 7. Conditions on Arrival

Note: Adapted from Snook News. (2024). *Ashland apartment building fire - April 22nd, 2024* [video]. https://bit.ly/4dMJ5uQ.

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?

No smoke or flames were visible from Side Delta of the Delta 1 Exposure (facing Centre Street) on your approach. A moderate volume of smoke is visible on Side Bravo, but it appears that the smoke is being pushed by the wind from Side Charlie. Access to Side Charlie is obstructed by a fence and fire conditions.

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 a hydrant at Walnut and 11th Streets. State the tactical assignment you would give them exactly as you would transmit it.

7. 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 7 before answering the next six questions.

8. What was the problem?

9. What was getting in the way of achieving your tactical priorities?

10. Was there anything in this incident that could have hurt or killed you (right now)?

11. Was it reasonable to believe that the Main Fire Occupancy and Exposure Delta 1 were occupied (in addition to the visible occupants in the window and on the roof)?

12. Was there searchable space?

13. If you believed it was reasonable that Main Fire Occupancy and Exposure Delta 1 were occupied and there was searchable space, what could you do about it?

Watch the incident video (Snook News, 2024) from 00:40 to 01:15 before answering the next several questions.

14. The first water on the fire was from an apparatus master stream on an engine positioned in front of the Bravo 1 exposure. Was this stream effective? Why or why not? What were the advantages and disadvantages of using an apparatus mounted master stream given the fire location and position of the apparatus in this incident?

15. Based on the initial fire conditions in this incident, what flow rate would likely have been required to achieve knockdown? Why? What tactical options could have been effective for exterior water application? Why?

Additional Learning: Underwriters Laboratories Fire Safety Research Institute (UL FSRI) study of water application has identified that "if you get water where it needs to go you don't need much" (UL FSRI, 2018). This tactical consideration applies to both exterior and interior water application. A high flow rate applied in the right place will often achieve quicker knockdown than a lower flow rate. However, the challenge is in getting the water in the right place. Higher flow tactical options such as apparatus mounted, and portable master streams have less mobility than attack lines and require forethought in apparatus and master stream positioning for effective use. In selecting an exterior water application tactic, consider the following:

- The flow rate required. Consider the extent of fire involvement and its location (don't simply be distracted by the spectacular appearance of flames on the exterior).
- Which tactical option will achieve the quickest water on the fire with an adequate flow rate and distribution to achieve knockdown.

In the incident presented in this 10-Minute Training firefighters accomplished knockdown of most of the fire with an apparatus mounted master stream. Consider the following examples of effective use of an apparatus mounted master stream, large attack line, and mid-sized attack line for effective exterior water application with a significant level of fire involvement (or at least spectacular exterior conditions).

- Watch *Delavan fire department responds to fully involved house fire* (Kolanda, 2024) for an example of quick water and effective application of exterior water on a well involved house fire with an apparatus mounted master stream.
- Watch *Apartment fire on SE 121st in Portland* (Koin 6, 2016) for an example of the effectiveness of exterior water application on a significant body of fire with a 2 ½" attack line.

- Watch *UL FSRI Multi-Family Experiment 3B* (Hartin, 2023) for an example of the effectiveness of exterior water application on a well involved apartment fire with extension with a 1 ¾" attack line.

Use of tank water for exterior application with a master stream requires close coordination between the apparatus operator and the member operating the master stream for initial application to be on-target and to limit flow to that necessary to achieved knockdown. Get out and practice this skill along with rapid transition from apparatus mounted master stream operation to stretching and operating an attack line (exterior or interior) to ensure effective water distribution and fire control once a large body of fire has been knocked down.

References

69 News. (2024). *Fire destroys apartment building in Ashland.* Retrieved May 18, 2024, from https://bit.ly/44OVOcD.

Google. (2023a). [Street view 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/3K3LyDs.

Google. (2023b). [Street view 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/4bzijEE.

Google. (2023c). [Street view 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/3ykLU6d.

Google. (2023d). [Street view 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/44Kb9eo.

Google. (2024a). [Map, 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/4dE1mue.

Google. (2024b). [Aerial view 1100 West Centre Street, Ashland, PA]. Retrieved May 18, 2024, from https://bit.ly/3QG05cw.

Hartin, E. (2023). *Underwriters Laboratories Fire Safety Research Institute (UL FSRI) multi-family experiment 3B* [video]. Retrieved May 18, 2024, from https://bit.ly/3V2x9Oe.

Koin 6. (2016). *Apartment fire on SE 121st in Portland* [video]. Retrieved May 18, 2024, from https://bit.ly/3QOkdJe.

Kolanda, C. (2014). Delavan fire department responds to fully involved house fire. Retrieved May 18, 2024, from https://bit.ly/3QNieFa.

Snook News. (2024). *Ashland apartment building fire - April 22nd, 2024* [video]. Retrieved May 18, 2024, from https://bit.ly/4dMJ5uQ.

Underwriters Laboratories Fire Safety Research Institute (UL FSRI). 2018 tactical consideration: if you get water where it needs to go, you don't need much. Retrieved May 18, 2024, from https://bit.ly/4dIiRd5.

Weather Underground (2024). *Montoursville, PA weather history* [historical weather April 22, 2024]. Retrieved May 18, 2024, from https://bit.ly/3QSYiRs.