



In-Station Training

TM 23-34 Residential Garage Fire



Author

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Purpose

Residential garages can contain a wide range of hazards from flammable liquids and gases, vehicles (including those with Lithium-Ion batteries) and energy storage systems (also with Lithium-Ion batteries). Also keep in mind that “nothing showing means nothing” is one of the tactical considerations in the Underwriters Laboratories Fire Safety Research Institute research report, [Impact of Ventilation on Fire Behavior in Legacy and Contemporary Residential Construction](#) (Kerber, 2010 & UL FSRI 2018).

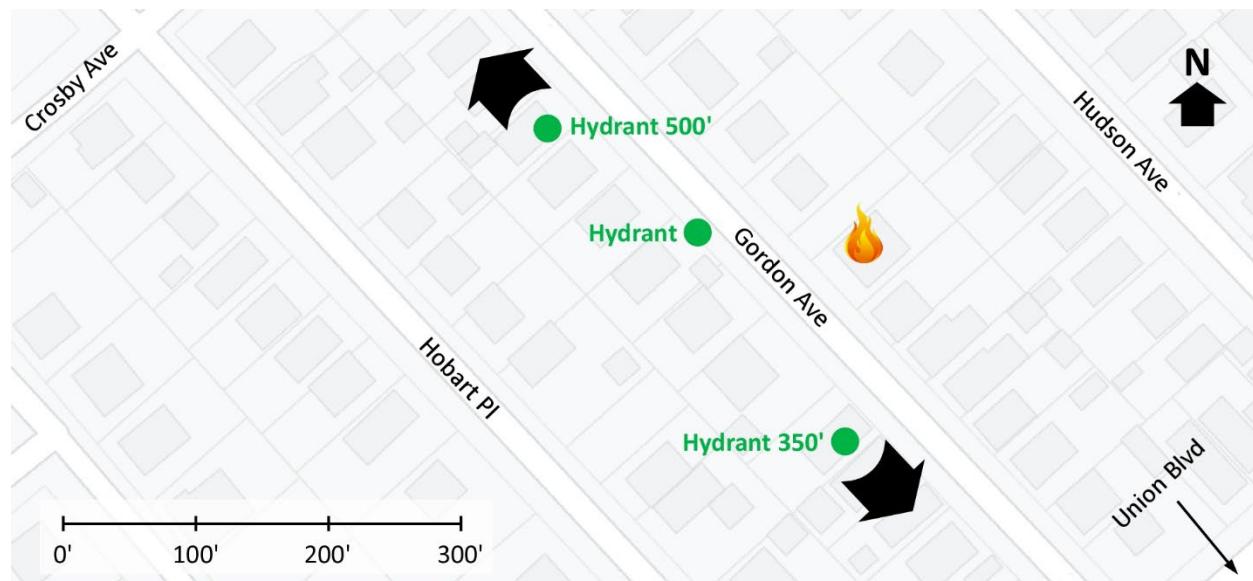
Learning Outcomes

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 residential fire at 94 Gordon Avenue in Totowa, New Jersey on June 29, 2023 (Dylan NJ Buff, 2023). Review the map and photos (Figures 1-5) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023b). [Map, 94 Gordon Ave, Totowa, NJ]. <https://bit.ly/450rieP>.

Figure 2. Aerial View



Note: Adapted from Google. (2023a). [Aerial view, 94 Gordon Ave, Totowa, NJ]. <https://bit.ly/3ORJsJd>.

There are several hydrants within several hundred feet on either side of the incident location on Gordon Avenue Park Drive. Several other hydrants are in the area as illustrated in Figure 1.

Figure 3. Alpha/Bravo Corner



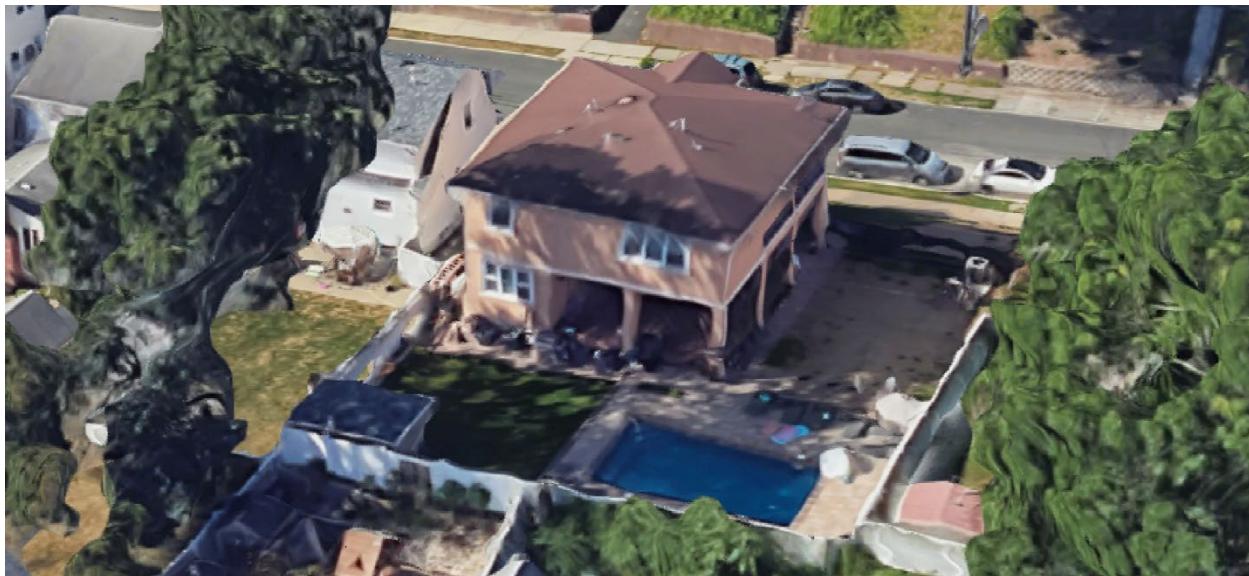
Note: Adapted from Google. (2022a). [Street view, 94 Gordon Ave, Totowa, NJ]. <https://bit.ly/3Yvg5AC>.

Figure 4. Alpha/Delta Corner



Note: Adapted from Google. (2022b). [Street view, 94 Gordon Ave, Totowa, NJ]. <https://bit.ly/3ql8isF>.

Figure 5. Bravo/Charlie Corner



Note: Adapted from Google. (2023c). [3d aerial view, 94 Gordon Ave, Totowa, NJ]. <https://bit.ly/3QwhrsZ>.

The temperature is 82° F with wind from northwest at 9 mph (Weather Underground, 2023). You have been dispatched to 94 Gordon Ave for a report of smoke coming from the garage at 13:53. 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?

While responding you hear a command officer, another engine and advanced life support ambulance with typical staffing for your agency go enroute. The second engine and ambulance will arrive approximately five minutes after you, followed by the command officer. All other units dispatched on the first alarm will arrive after the command officer. You are responding from the southeast from Union Boulevard.

Watch the [incident video](#) (Dylan NJ Buff, 2023) from 00:46 to 01:46 and examine Figure 6 illustrating conditions on arrival. *For now, ignore the responders who arrived prior to the first company and focus on incident conditions.*

Figure 6. Conditions on Arrival



Note: Adapted from Dylan NJ Buff. (2023). *Pre-arrival* Totowa Fire Dept operating at a working house garage fire at 94 Gordon Ave 6/29/23 [video]. <https://bit.ly/3L0yCiX>.

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 is visible from the building other than a small volume of smoke showing with low velocity from the area of the garage door. The interior of Floor 2 is clear (as observed through the open front door). An occupant reports that everyone is out of the house.

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.
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?

Watch the [incident video](#) (Dylan NJ Buff, 2023) from 02:46 to 07:15 before answering the next several questions.

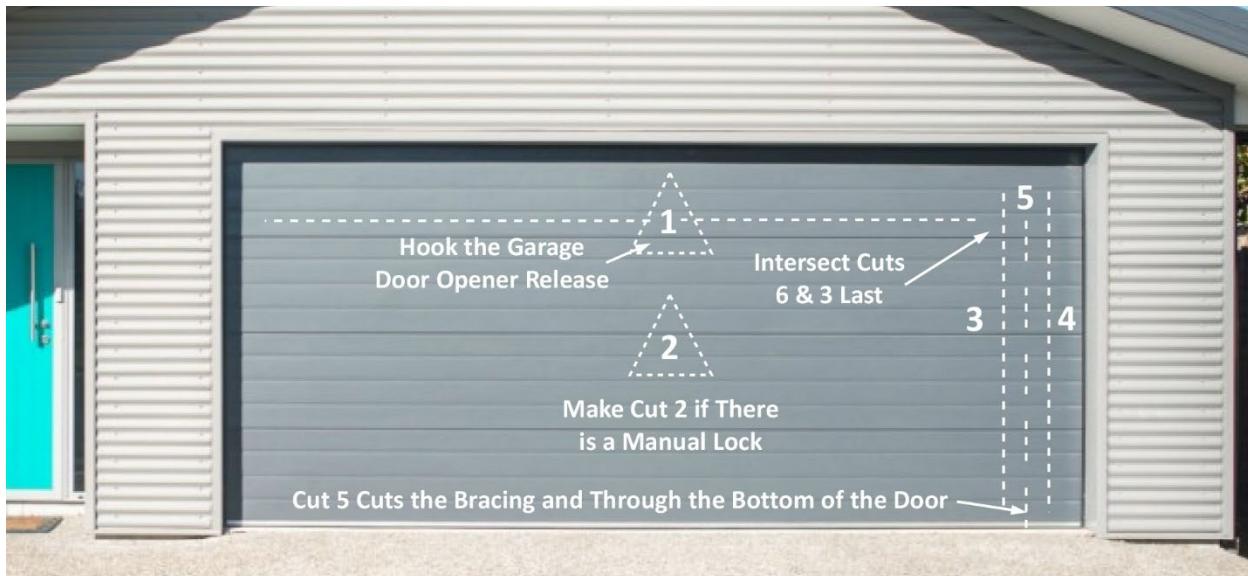
8. The front door (accessing Floor 2) was open on arrival and remained open throughout the incident. What can you infer from the conditions observed at the door? Would there have been advantages or disadvantages to closing the front door during your 360-degree reconnaissance? Why or why not?

9. There were several firefighters without respiratory protection (and in some cases without any personal protective equipment) performing forcible entry, firefighting, overhaul operations, and simply hanging out around the garage door on Side Alpha. What level of exposure would these personnel have had to toxic products of combustion? If you are unsure, see [Airborne Contaminants During Controlled Residential Fires](#) (Fent, et al. 2018)? What steps could have been taken to reduce exposure risk?

10. The firefighters in this incident used a gasoline powered rotary saw to gain access through the garage door. How could this forcible entry operation have been improved (think about forcible entry, protection of the operating crews, and eventual access for fire control)?

Additional Learning: Watch [Residential Garage Doors](#) (Miami-Dade Fire Rescue Training Division, 2023) for an overview of several methods for gaining access through a residential sectional overhead door. This video does not show all methods for forcing overhead doors but provides a solid starting point for defeating residential sectional overhead doors.

Figure 7. Garage Door Forcible Entry



Note: Adapted from Miami-Dade Fire Rescue Training Division. (2023). *Residential garage doors*.
<https://bit.ly/3QBZ0Db>

If you had significant fire conditions behind the garage door and were going to approach forcible entry as illustrated in the Miami-Dade video, how would you approach fire control and protection of the crew performing forcible entry?

While you may not have an overhead door you can practice destructive forcible entry on, you can walk and talk through the forcible entry process using an overhead door at the fire station (crawl). You can also increase the realism and enhance your deliberate practice efforts by deploying an attack line and rotary saw, walking through the forcible entry process with a charged line and running saw. Pay attention to where the attack line needs to be to allow saw access and provide protection. Hold the saw in the same position that would be required when forcing the door (consider how you will make the horizontal cut).

References

Dylan NJ Buff. (2023). **Pre-arrival* Totowa Fire Dept operating at a working house garage fire at 94 Gordon Ave 6/29/23* [video]. Retrieved August 12, 2023, from <https://bit.ly/3L0yCiX>.

Fent, K., Evans, D., Babik, K., Striley, C., Bertke, S., Kerber, S., Smith, D., & Horn, G. (2018) Airborne contaminants during controlled residential fires, *Journal of Occupational and Environmental Hygiene*, 15:5, 399-412. Retrieved August 12, 2023, from <https://bit.ly/441s5Lv>.

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