



# In-Station Training

## TM 24-03 Commercial Vehicle Fire



### Author

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### Purpose

Paraphrasing Forest Gump, commercial vehicle fires are like a box of chocolates, you never know what you're going to get. This is particularly true with box trucks as the contents may or may not be obvious from the truck's markings.

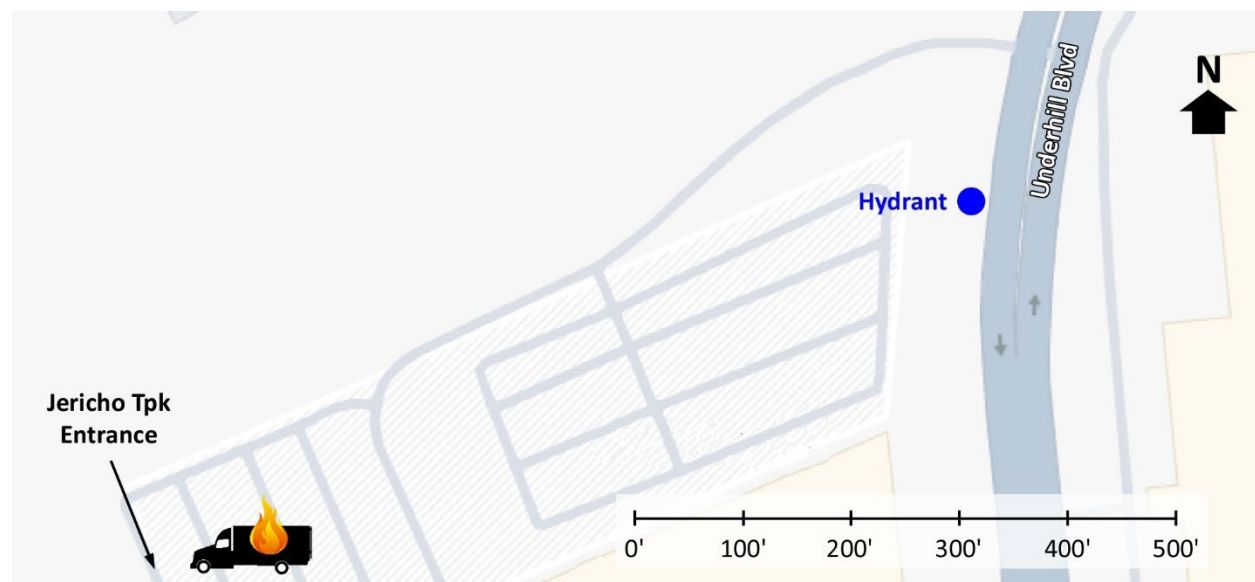
### Learning Outcomes

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

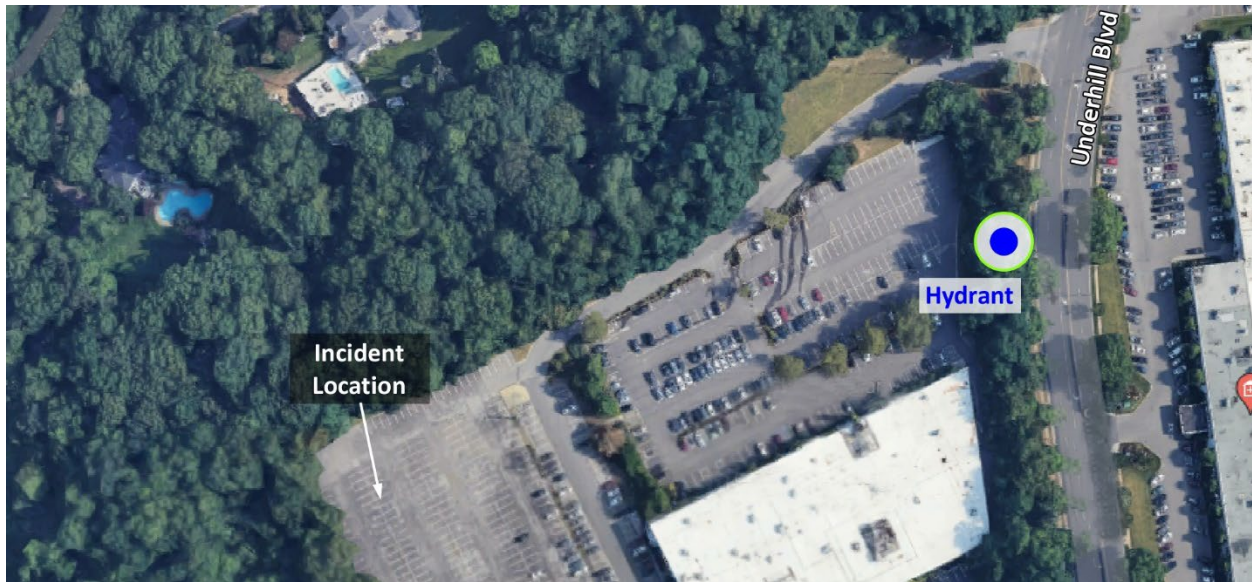
This incident involved a commercial vehicle fire at 851 Jericho Turnpike, Syosset, New York on November 21, 2023 (50 Response Videos, 2023). Review the map and photos (Figures 1-5) to gain an understanding of the area where the incident occurred.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [Map, 851 Jericho Turnpike, Syosset, NY]. <https://bit.ly/47CVVlx>.

Figure 2. Aerial View



Note: Adapted from Google. (2023b). [Aerial view, 851 Jericho Turnpike, Syosset, NY].  
<https://bit.ly/3GoyhDO>.

The closest hydrant is on Underhill Boulevard as illustrated in Figures 1 and 2.

Figure 3. Entrance Off Underhill



Note: Adapted from Google. (2023c). [Street view, 851 Jericho Turnpike, Syosset, NY].  
<https://bit.ly/3N94XoC>.

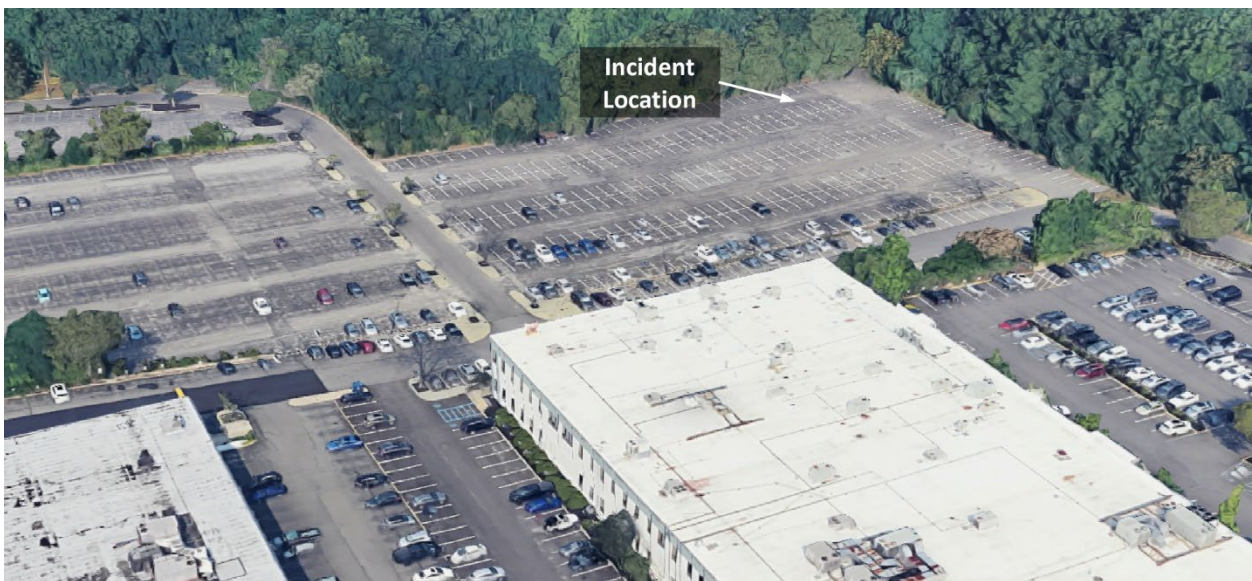


Figure 4. Entrance off Jericho Turnpike



Note: Adapted from Google. (2023d). [Street view, 851 Jericho Turnpike, Syosset, NY].  
<https://bit.ly/3GoTwFo>.

Figure 5. 3D Aerial View of Parking Lot



Note: Adapted from Google. (2023e). [3d aerial view, 851 Jericho Turnpike, Syosset, NY].  
<https://bit.ly/46CbhM9>.

The temperature is currently 44° F with wind from the east at 15 mph with gusts to 23 mph (Weather Underground, 2023). You have been dispatched to the industrial park at 851 Jericho Turnpike for a report of a commercial vehicle fire at 11:30. 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?

Dispatch provides an update indicating multiple callers reporting a box truck on fire in the parking lot. You will arrive from the east off Underhill Road. Two minutes after you, the second engine will arrive from the same direction, followed by the command officer. Any other units dispatched on the first alarm will arrive after the command officer.

Watch the [incident video](#) from 00:13 to 00:23 (McGoldrick, 2023) and examine Figure 6 illustrating conditions on arrival.

Figure 6. Conditions on Arrival



*Note:* Adapted from 50 Response Videos. (2023). *Truck fire – Syossett NY* [video]. Retrieved December 23, 2023, from <https://bit.ly/3R1SMLz>.

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?

Conditions on all sides of the vehicle are consistent with those observed from the rear in Figure 6. Markings on the truck indicate that it is owned by Data-Struction Inc., a confidential paper shredding firm.

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 Underhill Boulevard. State the tactical assignment you would give them exactly as you would transmit it.

Watch the [incident video](#) (50 Response Videos, 2023) from 02:30 to 03:00 and examine the conditions illustrated in Figure 7.



Figure 7. Conditions When Accessing the Inside of the Truck Cargo Area



*Note:* Adapted from 50 Response Videos. (2023). *Truck fire – Syossett NY* [video]. Retrieved December 23, 2023, from

7. What conditions do you anticipate when the rear doors of the cargo area of the truck are opened?
8. How will you approach fire control (think about access, potential for shielded fire, and overhaul requirements)?

Watch the [incident video](#) (50 Response Videos, 2023) from 03:00 to 04:00 before answering the remaining question.

9. A single line quickly knocked the fire down. How will you approach overhauling the shredded paper and complete extinguishment? What could be done to increase the effectiveness and efficiency of fire control in the cargo area of the truck?

**Additional Learning:** Water is an excellent extinguishing agent as it has a high specific heat (the amount of energy required to raise its temperature one degree) and latent heat of vaporization (the amount of energy required to vaporize water at its boiling point). However, one other property of water presents a challenge to effective fire control, that is its surface tension. Water has a high surface tension which limits its ability to spread on surfaces and penetrate through porous materials (like many Class A combustibles).

[\*Surface Tension - What is it, how does it form, what properties does it impart\*](#) provides a simple explanation of surface tension. [\*Drills You Won't Find in the Books: Class A Foam\*](#) (Angulo, 2018) explains the impact of surface tension on water used for fire control and the benefits of using Class A Foam or a wetting agent such as Novacool for Class A fires.

## References

- 50 Response Videos. (2023). *Truck fire – Syossett NY* [video]. Retrieved January 9, 2024, from <https://bit.ly/3R1SMLz>.
- Angulo, R. (2018). *Drills you won't find in the books: class A foam* [video]. Retrieved January 9, 2024, from <https://bit.ly/3vuZFhn>.
- Crash Chemistry Academy. (2018). *Surface Tension - What is it, how does it form, what properties does it impart* [video]. Retrieved January 9, 2024, from <https://bit.ly/4aJuy1D>.
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- Weather Underground (2023). *New York City, NY weather history* [historical weather November 1, 2023]. Retrieved January 9, 2024, from <https://bit.ly/3RSqrbX>.