

In-Station Training

TM 25-02 Commercial Fire



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Purpose

The layout of some buildings and occupancies can readily be identified from the exterior. However, renovations and changes in occupancy can make determining layout and configuration difficult under fire conditions.

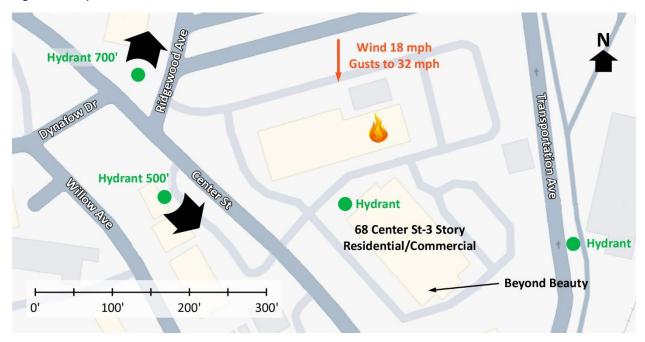
Learning Outcomes

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 fire at 70 Center Street in Hyannis, Massachusetts on November 13, 2024, at 00:25 (HyannisNews.com, 2024; Bastille, 2024, & Broadcastify, 2024a, 2024b, & 2024c,). This building, originally constructed in 1950, has been renovated and expanded over its lifespan. Review the map and photos (Figures 1-11) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2024a). [Map, 70 Center Street, Hyannis, MA]. https://bit.ly/30HJ8wS.

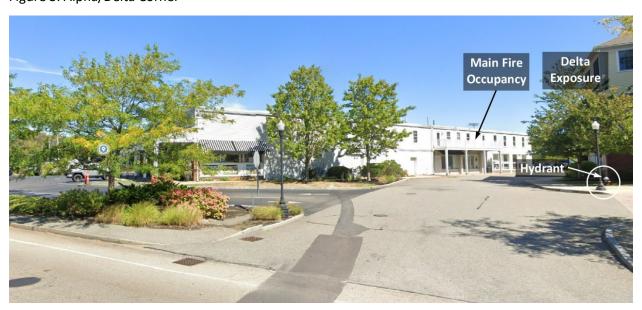
Figure 2. Aerial View



Note: Adapted from Google. (2024b). [Aerial view 70 Center Street, Hyannis, MA]. https://bit.ly/30MBtNW.

The closest hydrant is on Side Delta, adjacent to 68 Center Street. Additional hydrants are in the area as illustrated in Figure 1.

Figure 3. Alpha/Delta Corner



Note: Adapted from Google. (2024c). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/3ZHgEtq.

Figure 4. Side Delta



Note: Adapted from Google. (2024d). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/4g2TL9D.

Figure 5. Side Delta (Charlie/Delta Corner)



Note: Adapted from Google. (2024e). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/3VuQc3P.

Figure 6. Side Charlie



Note: Adapted from Google. (2024f). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/4f7Sfl5.

Figure 7. Side Bravo (Bravo/Charlie Corner)



Note: Adapted from Google. (2024g). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/41Tr2zV.

Figure 8. Bravo 1 Exposure (Bravo/Charlie Corner)



Note: Adapted from Google. (2024h). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/4ik8Nt7.

Figure 9. Side Bravo



Note: Adapted from Google. (2024i). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/3ZjMwTi.

Figure 10. Alpha/Bravo Corner



Note: Adapted from Google. (2024j). [Street view 70 Center Street, Hyannis, MA]. https://bit.ly/30HNnZk.

Figure 11. 3D Aerial



Note: Adapted from Google. (2024k). [3D aerial view 70 Center Street, Hyannis, MA]. https://bit.ly/49BuHUC.

The temperature is currently 40° F with wind from the north at 18 mph with gusts to 32 mph (Weather Underground, 2024). It is Wednesday November 13th, and you have been dispatched as a single engine at 00:25 to 68 Center Street for an automatic fire alarm at Beyond Beauty.

As you exit the station, responding to the automatic alarm, dispatch upgrades the response to 3 engines, a ladder company, medic unit, and command officer for a structure fire at 68 Center Street, Beyond Beauty. The engines and ladder have four-person staffing¹. You are the company officer or AIC of the first arriving engine.



Time starts now! Answer the first nine questions within the next 10 minutes. Decide and put your answers in the form of communication you would have with your crew, other companies, and the first arriving command officer. Save discussion for after answering the first eight questions.

You hear a command officer, two other engines, a ladder company, an advanced life support ambulance, and command officer go enroute. As the other units go enroute, dispatch changes the location to 70 Center Street. You will arrive from the south on Center Street. The ladder company will arrive from the south on Center Street four minutes after you. The second engine will arrive from the north five minutes after you. The command officer will arrive shortly after the second engine and ladder company. All other units dispatched on the first alarm will arrive after the command officer.

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

Watch the first 00:28 of the <u>incident video</u> (HyannisNews.com, 2024) and examine Figure 12 illustrating conditions on arrival.

¹ If your first alarm deployment is different, use your own resource assignment and staffing with the first and second arriving resources typical for your agency (e.g., two engines vs. engine and ladder).



Figure 12. Conditions on Arrival (Side Delta, Charlie/Delta Corner)

Note: Adapted from HyannisNews.com. (2024). Watch crews battle heavy flames fueled by strong winds after Hyannis building ignites [video]. https://bit.ly/4g17Kgb

- 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 would you give your crew?

No smoke is visible from Side Bravo. The north wind is pushing smoke horizontally onto the Delta 1 Exposure, a three-story, residential over commercial building.

- 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.	Ladder 1 arrives and reports that they are Level 1 on Center Street. State the tactical assignment you
	would give them exactly as you would transmit it.

- 7. Engine 2 arrives and reports that they are Level 1 on a hydrant to the south on Center Street.
- 8. 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 one through eight before answering the next six questions. Give some thought to what cues, patterns, or anomalies (differences from conditions that you would anticipate) inform your answers.

- 9. What was the problem?
- 10. What was getting in the way of achieving your tactical priorities?
- 11. Was there anything in this incident that could have hurt or killed you (right now)?

12. Was it reasonable to believe that the Main Fire Occupancy was occupied?
13. Was there searchable space?
14. If you believed it was reasonable that the building was occupied and there was searchable space, what could you do about it?
You were initially dispatched to an automatic alarm at Beyond Beauty at 68 Center Street (on the Delta Side of the Delta 1 Exposure) and this incident was then updated to a structure fire at the same address. The address was then changed to 70 Center Street where you encountered a working fire.
15. Did you have any concern regarding the difference in location? Identify at least two possible reasons why the initial report could have been the automatic alarm in an adjacent building. Did you take any action based on the difference in location between the initial alarm and the obvious working fire at 70 Center Street?
Watch the incident video (HyannisNews.com, 2024) from 00:45 to 02:45 and examine Figure 13 before answering the next several questions.

Figure 13. Fire Conditions after the Quick Hit



Note: Adapted from Adapted from HyannisNews.com. (2024). Watch crews battle heavy flames fueled by strong winds after Hyannis building ignites [video]. https://bit.ly/4g17Kgb

- 16. Do you think that the wind was impacting fire conditions on the interior of Floor 2? What fire behavior indicators informed your perspective?
- 17. Was the quick hit performed by Hyannis Engine 2 effective? Why or why not?
- 18. Were your initial fire control tactics similar or different than Hyannis Engine 2 (first arriving engine)? How did the wind, configuration of the building (particularly the ventilation openings and potential openings), and location of the fire impact your choice of initial attack position and tactical assignments?

Watch the incident video from 02:45 to 06:25 and examine Figure 14. The next question puts you in Hyannis Engine 2's position. You entered the building through Side Delta, knocked down fire on Floor 1 and located the access to Floor 2, but are unable to locate the fire. There is zero visibility, temperature is increasing, and one of your crew is below 50% air supply (Broadcastify, 2024b).





Note: Adapted from Adapted from HyannisNews.com. (2024). Watch crews battle heavy flames fueled by strong winds after Hyannis building ignites [video]. https://bit.ly/4g17Kgb

19. What communication would you have with Center Command based on the conditions on Floor 2 and your crewmembers' air status? State the communication exactly as you would transmit it.

² The relationship between incident conditions in the incident video and radio traffic from Engine 2 regarding conditions on Floor 2 is estimated and may differ somewhat from the actual time sequence.

Additional Learning: In this incident the Hyannis Fire Department and other agencies from Barnstable County controlled the fire without a mayday or any firefighter or civilian injuries. However, analysis of incident audio points to several red flags that pointed to increased risk of a mayday.

Project Mayday analyzed the audio from nearly 3000 mayday incidents and identified common phrases that were correlated with firefighters operating in the hazard zone calling a mayday (Abbot, 2018). One or more of these phrases were transmitted in 88% of mayday incidents analyzed. Review of the incident audio from the Center Street incident, variations of four of these phrases were transmitted by Hyannis Engine 2 or Engine 3 and one other condition was present (fire above) but were not identified in radio transmissions. Review this list and identify if there are any other conditions presented by this incident that would raise your level of concern regarding potential for a mayday?

- 1. "We have zero-visibility conditions".
- 2. "We have fire above our heads".
- 3. "We have fire below us".
- 4. "We need more line to reach the fire; extend our line".
- 5. "We have not found the seat of the fire".
- 6. "We are running out of air" (or indications of a "low-air alarm").
- 7. "This is a hoarder structure".
- 8. "We have had a flashover".
- 9. "We have had a ceiling/roof collapse".
- 10. "We have lost multiple windows".
- 11. "It's really getting hot in here; we are backing out".
- 12. "Our exit has been blocked".
- 13. "We are sending a firefighter out with a problem".
- 14. "We have a hole in the floor" or "we have had a floor collapse".
- 15. "Command has lost communications with multiple crews".
- 16. "We have a lot of sprinkler heads going off in here" [big box or other large commercial].

One of these phrases should get the IC's attention, two or three could indicate potential for an immanent mayday or the need for a strategic shift. For additional information on these mayday red flags, read <u>Mayday Communications Clues</u> (Abbot, 2018).

Discuss these phrases with the members of your company and the implications not only for the IC, but for company officers who are transmitting priority traffic to the IC. If you recognize these conditions or hear yourself making these transmissions to IC #2 or your division supervisor, what action should you be taking in addition to communicating the bad news?

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