



In-Station Training

TM 26-22 Structural Collapse



Author

Chief Ed Hartin

Purpose

Collapse of rack storage with a missing, and possibly trapped worker presents complex challenges and potential for extended technical rescue operations.

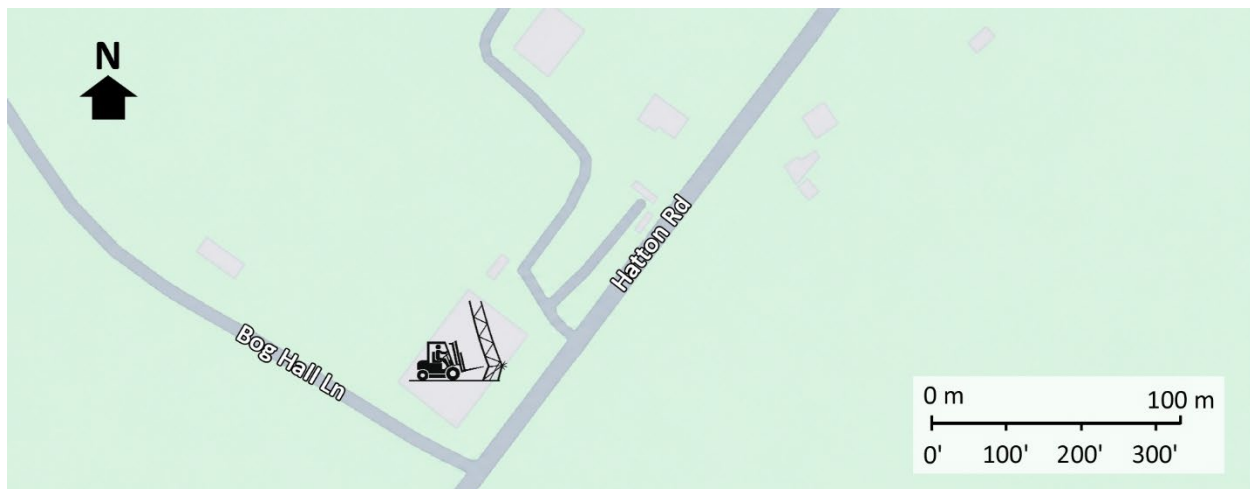
Learning Outcomes

Initial incident commanders 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 collapse of high-rack pallet storage at Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom on May 5, 2016, at 09:40 (Shropshire Star, 2016a, 2016b, 2016c; Ridler, 2016; & BBC News, 2016). Review the map and photos¹ (Figures 1-6) to gain an understanding of the building and area involved.

Figure 1. Map of the Incident Area

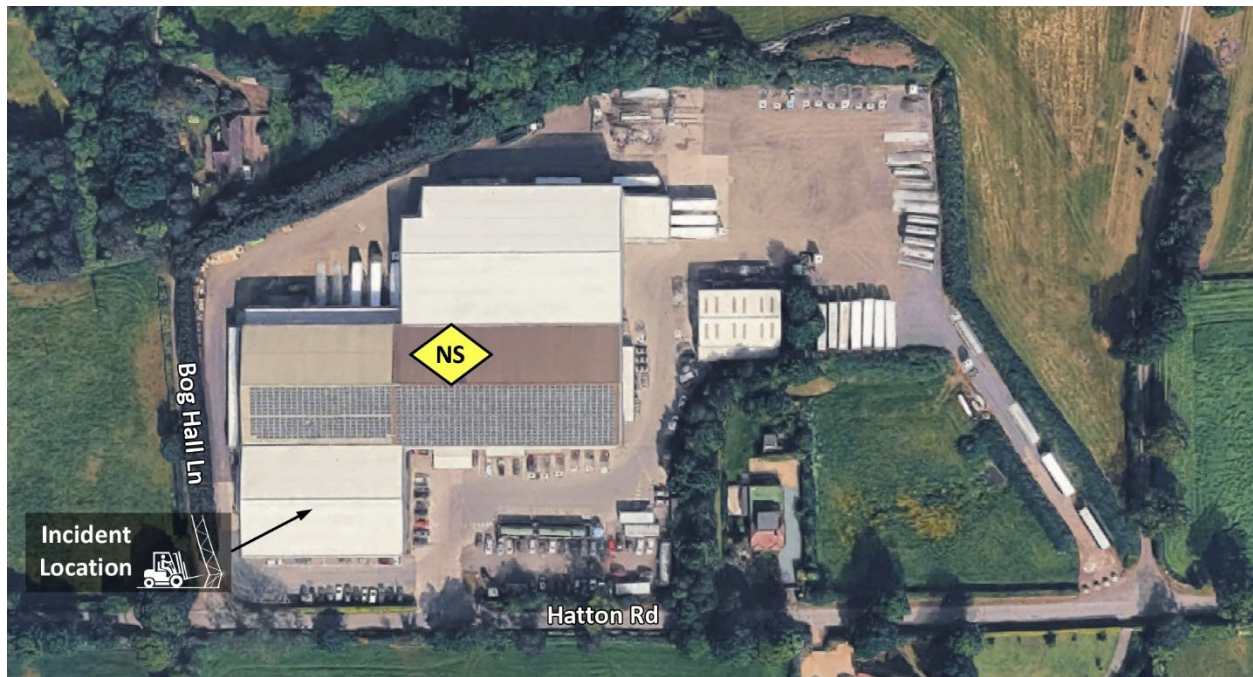


Note: Adapted from Google. (2026a). [Map, Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. Map data ©2026 Google. <https://bit.ly/4bFgWGR>.

¹ The photos in this 10-Minute Training show the Edwards Transport facility after renovation, and as such have a slightly different configuration than at the time of the incident.

There are no hydrants in the immediate vicinity of the incident.

Figure 2. Aerial View



Note: Adapted from Google. (2026b). [Aerial view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. Imagery © Google, Imagery © Airbus Maxar Technologies, Map Data © 2026. <https://bit.ly/4fNLDw3>.

Figure 3. Facility Entrance



Note: Adapted from Google. (2025a). [Street view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. ©2026 Google. <https://bit.ly/4wcTWGr>,

Figure 4. Alpha/Bravo Corner



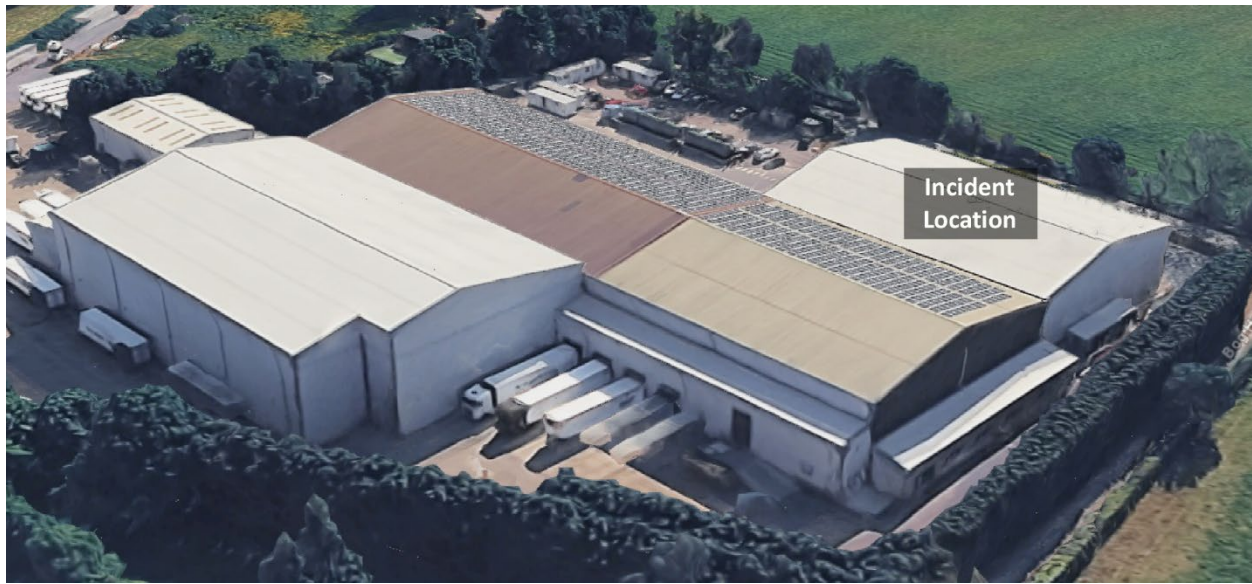
Note: Adapted from Google. (2025b). [Street view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. ©2026 Google. <https://bit.ly/4xs9Cqe>

Figure 5. Bravo/Charlie Corner



Note: Adapted from Google. (2025c). [Street view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. ©2026 Google. <https://bit.ly/45hmLGM>.

Figure 6. Charlie/Delta Corner (3D Facility Overview)



Note: Adapted from Google. (2026c). [Aerial view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. Imagery © Google, Imagery © Airbus Maxar Technologies, Map Data © 2026. <https://bit.ly/4fVjS3m>.

The incident is in a rural village setting. The immediate area around Hatton Road includes commercial or transport-related premises set within a wider rural and village landscape. Nearby residential development is generally low-density village housing, with detached and semi-detached homes more common than flats or large multifamily buildings. Housing includes a mix of older village properties and later residential development. English is the predominant language in the community. (Open AI, 2026). Fire and emergency medical call volume in this area is typical for a rural area and calls to Edwards Transport are infrequent.

The temperature is currently 44° F (7° C) with no appreciable wind (Weather Underground, 2016). It is Tuesday May 5th and you are dispatched to an **industrial accident involving collapse of high rack storage** at Edwards Transport on Hatton Road along with two other engines, a ladder company, medic unit, and a command officer, at 09:40. The engines and ladder have four-person staffing². **You are the officer of the first arriving engine company.**



Time starts now! Answer the first ten questions within the next 10 minutes. Save discussion until after you have answered these questions.

² If your first alarm deployment is different, use your own resource assignment and staffing.

While responding, dispatch provides an update that callers report that high rack storage in the cheese warehouse has collapsed, employees are evacuating. You hear the other engines, ladder, medic unit, and command officer go enroute.

1. What critical factors would you consider when dispatched and during response? What conversations would you have with your crew during response?
2. Based on the dispatch information and what you know about this occupancy and response area, what do you anticipate finding on arrival?



Important! Answer questions three through ten in the form of communication you would have with your crew, dispatch, other companies, and the first arriving command officer. State the communications exactly as you would say them face-to-face or over the radio. Save explanation or discussion until after you have completed these questions.

You will arrive from the northwest on Hatton Road. You anticipate the ladder company will arrive several minutes after you, followed by the second arriving engine, medic unit, and command officer. The balance of the resources will arrive after the command officer.

There is no incident or simulation video for this 10-Minute Training. Street view photos and photorealistic simulation images are used to provide context for your situation assessment and decision making.

Figure 5. Conditions on Arrival



Note: Adapted from Google. (2025d). [Street view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. ©2026 Google. <https://bit.ly/4g69NAL>.

3. State your initial radio report (IRR) exactly as you would transmit it to dispatch.

4. 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?

The facility manager advises that the collapse occurred in the “back of the warehouse:, pointing towards the end of the warehouse closest to Bog Hall Lane and advises that all employees except for one forklift operator who was working in the warehouse are accounted for.

Figure 6. Conditions on Side Charlie (View from the Bravo/Charlie Corner)



Note: Adapted from Google. (2025b). [Street view Edwards Transport, Hatton Road, Hinstock, Market Drayton TF9 2SR, United Kingdom]. ©2026 Google. <https://bit.ly/45hmLGM>. [Image Created with ChatGPT 5.5, DALL-E] Open Ai, (2025).

5. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?
6. State your follow up report exactly as you would transmit it to dispatch.

If you would perform interior reconnaissance. Watch the [incident video](#) (Shropshire Star, 2016). This video shows tactical operations but provides context for conditions that would have been observed when conducting interior reconnaissance. Click the link or scan the QR code to access the video. If you would not make entry to perform reconnaissance, wait until after answering questions seven through eighteen before watching this video.



7. Ladder 1 arrives and reports that they are Level 1 on Hatton Road. State the tactical assignment you would give them exactly as you would transmit it.

8. Engine 2 arrives and reports that they are Level 1 on Hatton Road. State the tactical assignment you would give them exactly as you would transmit it.
9. Medic 2 arrives and reports that they are Level 1 on Hatton Road, behind Engine 2. State the tactical assignment you would give them exactly as you would transmit it.
10. Based on 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 ten before answering the next eight questions. Think about what cues, patterns, or anomalies (differences from conditions that you would anticipate) informed your answers.

11. What information most influenced your expectations?
12. Did anything in the incident post-arrival challenge your initial expectations?
13. What was the actual problem once you arrived?
14. What were your tactical priorities and what was getting in the way of achieving them?
15. During initial operations, was there an immediate threat of serious injury or death to you, your crew, or other companies?

16. Was it reasonable to believe that there were one or more workers trapped under the collapse?

17. Was the collapse area searchable?

18. If you believed it was reasonable that there were one or more trapped workers and that the area was searchable, what could you do about it?

If you did not watch the [incident video](#) (Shropshire Star, 2016) previously, watch it now. This video shows interior tactical operations and conditions that would have been observed when conducting interior reconnaissance. Click the link or scan the QR code to access the video.



This incident involved a nine-hour technical rescue operation to locate and remove the worker who was trapped inside the safety cage of his forklift under pallet racks and 3.5 tons of cheese. The urban search and rescue team inserted a drone through an opening in the roof and used a search and rescue K9 to locate the worker and breached an exterior wall of the building to accomplish the rescue (logisticsmatters, n.d.).

19. What were your initial actions to locate the forklift operator? In retrospect, what other methods could help isolate his location?

20. What technical rescue resources did you request? If IC #2 requested that you brief the technical rescue team leader, what information would you provide?

Additional Learning

Read [The Rescue Leadership Playbook: Pallet Rack Collapse](#) (Owens, 2026) for an overview of this type of incident and tactical options for initial response. If you have facilities with high rack storage in your response area conduct a tactical walk around with the members of your company and discuss how you would approach an incident like this.

This incident involved collapse of high rack storage due to impact by a forklift (logisticsmatters, n.d.). However, high rack storage collapse can also occur under fire conditions. Early Suppression Fast Response (ESFR) sprinkler systems, commonly used in warehouse occupancies, are engineered to

suppress fires before they can fully develop. The sprinkler heads in this type of sprinkler system typically flow between 100 gpm and 220 gpm, depending on pressure at the heads and the system is designed to support twelve heads flowing simultaneously (Risk Logic, 2009 & NFPA, 2025). Looking at this in terms of weight, twelve heads operating at 100 gpm are flowing 10,008 pounds of water per minute. If the flow rate is 220 gpm, the system is flowing 22,019 pounds of water per minute. Consider the impact if the packaging and or materials in the rack storage system can trap or absorb water!

The incident in this 10-Minute Training was complex. Consider how much more complex rapid intervention and firefighter rescue operations would be if high rack storage collapse traps crews operating at a warehouse fire. The best way to deal with a mayday is to not have one. Stay out of the interior collapse zone presented by high rack storage!

Blue Card Tech Rescue CE: If you are a [Blue Card](#) Certified IC, complete the Incident Command for Technical Rescue continuing education (CE) module to improve your understanding of the application of the eight functions of command to technical rescue incidents.

Big Box: Watch [Big Box Fires, Sprinklers & The Blue Card Big Box SOG](#) (Blue Card, 2024) for a quick overview of big box fires and sprinklers. Consider attending the Blue Card Big Box Workshop to develop your understanding of this challenging type of incident and how to work effectively in conjunction with fixed fire protection systems.

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