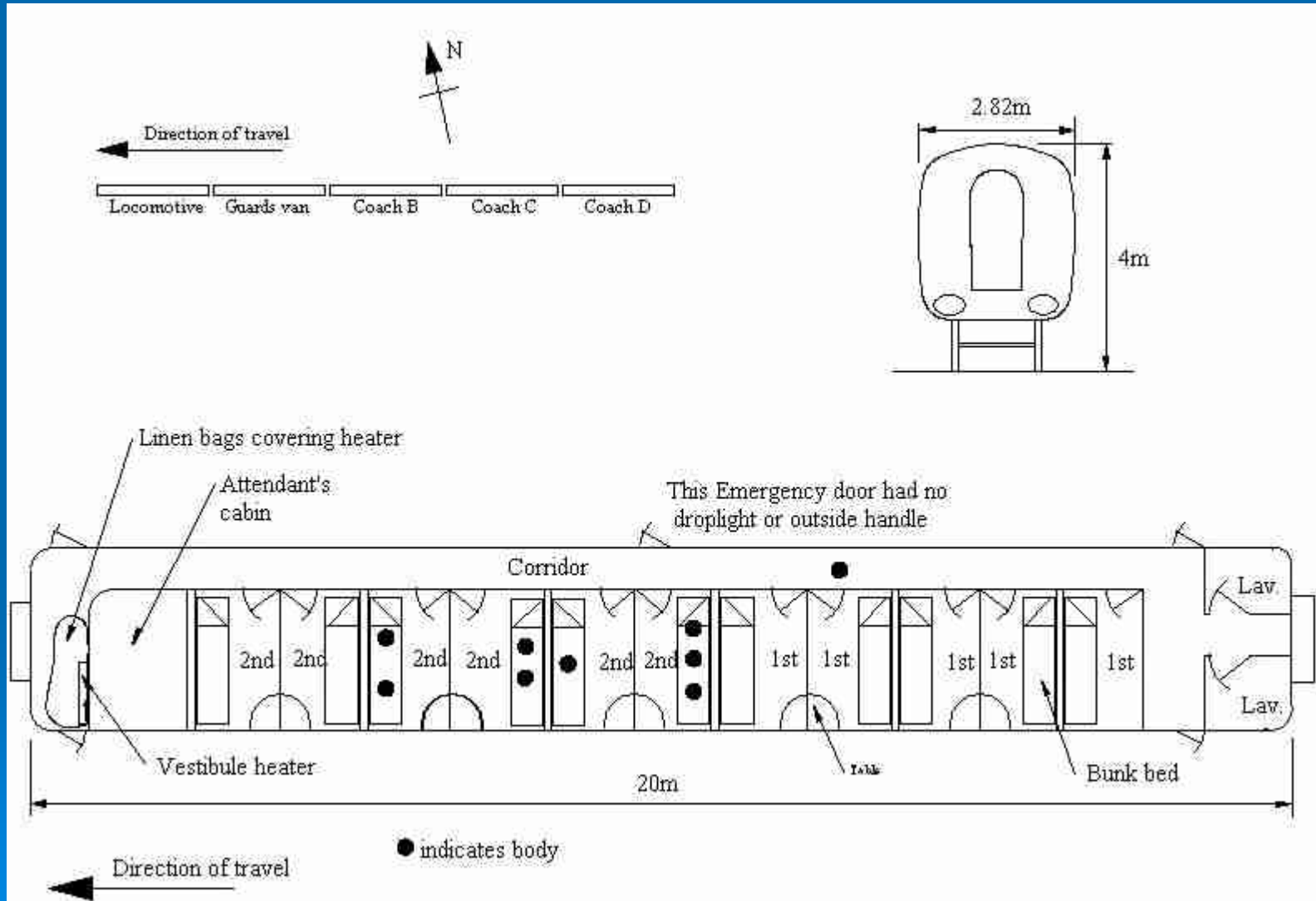


# Taunton sleeping-car train, UK, 1978

- 11 people died and 16 were injured.



# Taunton – car design



# Taunton - summary

- The Penzance to Paddington train came to a standstill at 02.41 on Thursday 6 July 1978 when a communication cord was pulled; this was about half mile short of Taunton station.
- Smoke could be seen coming from the leading sleeping car and the driver used a nearby phone to alert the signalman who called the emergency services. Police arrived at 02.52; the first ambulance at 02.54 and the first fire brigade appliance at 02.55.
- The fire originated in sacks of soiled and clean bed linen placed against the electric vestibule heater in the leading sleeping-car. The interior of the first sleeper-car was completely gutted and the second sleeper-car suffered smoke damage.





- Taunton sleeper train. Night time, the train has stopped, rescue is in progress.

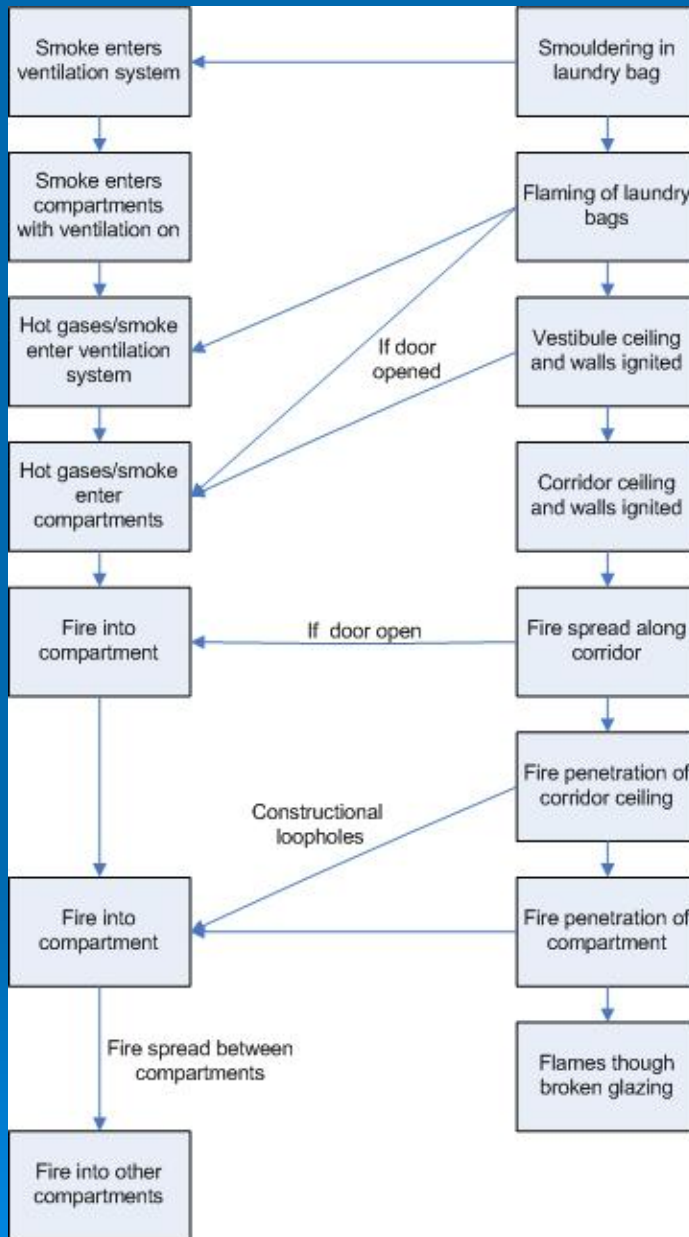




# Taunton – vestibule heater at end of corridor.

Bags of linen were placed against the electrical heater seen here on partition. Door is carriage door.





- Examination of the fire debris strongly suggested that the bags of linen next to the vestibule heater, had smouldered, and BRE were commissioned to undertake ignitability tests.
- It was concluded that fire started in the front vestibule area involving the bags of linen possibly ignited, via a smouldering process, from a heater. Fire then spread by ignition of the wall and ceiling linings in the vestibule area and spread to ceilings in the corridor, leading to subsequent involvement of some compartments.
- Fire could spread in at least two ways depending if and when compartment doors were opened , as indicated in the flow diagram. Most fatalities were found in the compartments The pathologist observed that only 1% carbon monoxide could be lethal and one could die quietly while asleep



# Taunton – damaged car



- Fire-damaged carriage in railway workshop being examined forensically.
- Note paint burnt away on roof above vestibule clearly indicating severe fire location





# Taunton - observations

- There was a practice of locking sleeping-car exit doors once a train started on its journey to prevent people boarding/leaving the train at any unforeseen stop.
- Fortunately, it appears this had no obvious effect on the survivability of the dead occupants found within the compartments where they may have been overcome by toxic fumes, but it did hinder fire brigade rescue activities.
- There was also a practice of locking the carriage communicating doors to prevent sleepers from being disturbed by rowdy travellers elsewhere on the train. This meant there was no escape route once a person was in the corridor.
- There was no fire detection and no means of sounding the alarm or instructions for rousing sleeping passengers and evacuating them
- There were adequate numbers of charged fire extinguishers, and only few staff knew how to use them.





# Taunton - observations

- There was no evidence that the attendant walked through the sleeper cars during the journey to see if anything was wrong. This and other factors suggested that attendants needed clearer instruction and monitoring to ensure they were fulfilling their safety responsibilities.
- The central exit door in the carriage should be replaced by a normal door that could be easily used for escape.
- Each compartment entrance door should have a flap fitted over the ventilation louver at the bottom of the door to prevent smoke entering a compartment from the corridor
- A specially designed hammer should be incorporated to assist in smashing a window, and this is now a common feature in modern trains



# Taunton - observations

- Smoke detection might be used to give early warning of fire. This was explored but found not to be practical due to false alarms caused by dust, temperature variations, air movements and vibrations
- Mattresses incorporating conventional polyurethane foam were highly flammable and should be removed.

