

## Recommendation Status Report: Trap and drag accidents at Archway and Chalk Farm stations

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of the recommendation(s), as reported to us, are described by the following categories:

### Key to Recommendation Status

<b>Open</b> (replaces Progressing and Implementation On-going)	Actions to address the recommendation are ongoing.
<b>Closed</b> (replaces Implemented, Implemented by alternative means, and Non-implementation)	ORR consider the recommendation to have been taken into consideration by an end implementer and evidence provided to show action taken or justification for no action taken.
<b>Insufficient response:</b>	The end implementer has not provided sufficient evidence that the recommendation has been taken into consideration, or if it has, the action proposed does not address the recommendation, or there is insufficient evidence to support no action being taken.
<b>Superseded:</b>	The recommendation has been superseded either by a newer recommendation or actions have subsequently been taken by the end implementer that have superseded the recommendation.
<b>Awaiting response:</b>	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concern over the way that an organisation has responded to a recommendation are indicated by one of the following:

**Red** – RAIB has concerns that no actions have been taken in response to a recommendation.

**Blue** – RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.

**White** – RAIB notes substantive actions have been reported, but the RAIB still has concerns.

# Recommendation Status Report



<b>Report Title</b>	Trap and drag accidents at Archway and Chalk Farm stations
<b>Report Number</b>	06/2024
<b>Date of Incident</b>	18/02/2023

Rec No.	Status	RAIB Concern	Recommendation	RAIB Summary of current status
06/2024/01	Awaiting Response	None	<p>The intent of this recommendation is to improve how the risk associated with trap and drag events is understood and controlled.</p> <p>London Underground Limited should review its processes for managing the risk arising from trap and drag events on the Northern line. The review should include, but not be limited to:</p> <ul style="list-style-type: none"> <li>improving the speed at which accident and incident data, including that from trap and drag events is recorded, reviewed and incorporated in risk management systems (such as LUQRA) and other safety decision making processes</li> <li>accurately recording the severity of harm arising from trap and drag accidents</li> <li>assessing the validity of the mitigation assigned to existing control measures, such as door obstacle detection systems and train operators identifying passengers trapped in train doors.</li> </ul> <p>Following this review, London Underground Limited should develop a timebound programme to review and update the relevant risk assessments and to identify any additional risk controls which are found to be appropriate.</p> <p>This recommendation may also apply to other London Underground lines (paragraphs 166a.i, 166a.ii, 166b.ii, 167b and 168a).</p>	
06/2024/02	Awaiting Response	None	<p>The intent of this recommendation is to further reduce the risk of a person becoming trapped in train doors and subsequently dragged by a departing train.</p>	

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			<p>London Underground Limited should identify and evaluate options which may further reduce the risk of a passenger becoming trapped and subsequently dragged by a departing train. This should include consideration of options including:</p> <ul style="list-style-type: none"> <li>• technology that will detect when thin objects, such as fingers, straps or clothing, become trapped in train doors</li> <li>• modifying door seals to make it easier for small, trapped objects, such as clothing and straps to be pulled free from closed doors</li> <li>• using technology to detect when something is being dragged along by the departing train and to generate an appropriate response when this has occurred</li> <li>• improving the images presented to train operators on in-cab monitors to enable them to identify whether a passenger is potentially trapped in the closed doors by clothing or other small objects (paragraphs 166a.i, 166a.ii, 166b.i, 166b.ii, 166c, 166d and 166e).</li> </ul>	
06/2024/03	Awaiting Response	None	<p>The intent of this recommendation is to provide sufficient time for people to be able to alight safely from trains at stations where automatic train operation is in use.</p> <p>Considering the sequences of events detailed in this investigation along with relevant industry guidance and good practice, including from other railway operators, London Underground Limited should review the current minimum automatic train operation station dwell times to determine if passengers have sufficient time to safely alight or board trains.</p> <p>Based on this review, London Underground should determine the minimum time needed for train doors to be open and available for use, and the effect which this will have on the associated minimum automatic train operation station dwell times.</p> <p>London Underground Limited should produce a timebound plan and make any appropriate changes to automatic train operation station dwell times on any of its lines using this mode of operation (paragraphs 166a.i and 166e).</p>	

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06/2024/04	Awaiting Response	None	<p>The intent of this recommendation is to reduce the risk of train operators losing attention and awareness while operating automatic train operation trains.</p> <p>London Underground should review the environmental, organisational and job factors related to operating trains in automatic train operation mode to understand how underload may affect train operators. This review should specifically consider the effect that underload may have on undertaking safety-critical tasks, such as train despatch, and what improvements may be made to assist train operators in maintaining attention. These improvements should include consideration of how the driving task is designed and the cab environment as well as measures such as individual awareness and training (paragraphs 166c, 166d and 167a).</p>	
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